# Information Technology:
# Dollars and Challenges

September 11, 1996

# Office of City Auditor

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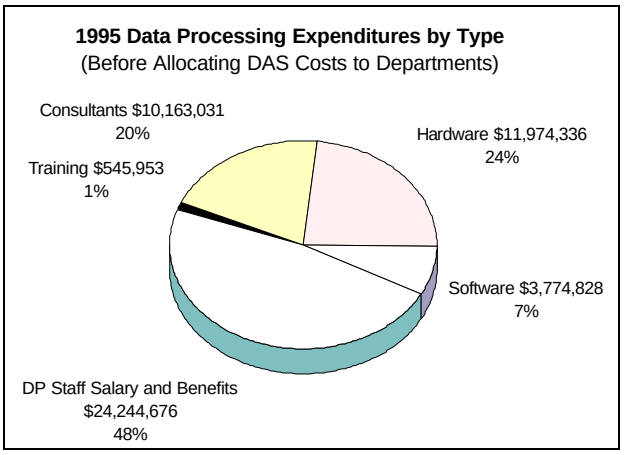
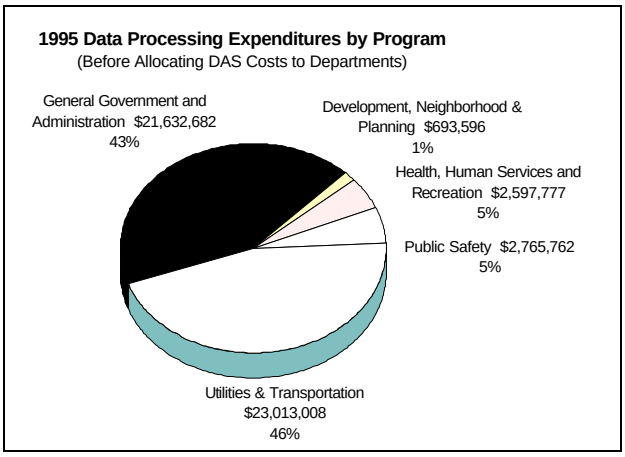
# EXECUTIVE SUMMARY

At the request of the Chair of the City Council's Technology and Telecommunication Committee, the Office of City Auditor gathered and analyzed data on what City departments are spending for information technology. In performing this study, we included City departments with over $100,000 in electronic data processing equipment, except for the Legislative Department[1]. Our initial discussions with departmental specialists in information technology led us to expand our work to include an attempt to identify principal challenges facing the City and the new Chief Technology Officer.

As seen below, the City's information technology expenditures are personnel and consultant related, with the majority, 69 percent, paying for salaries and benefits of data processing staff (48 percent), training of data processing staff (1 percent) and consultants (20 percent). Thirty-one percent of City expenditures go for hardware (24 percent) and software (7 percent).

Eighty-nine percent of the City technology expenditures support two Program areas -- (1) Utilities and Transportation, and (2) General Government and Administration. The City's other three major Program areas -- (1) Development, Neighborhood and Planning, (2) Health, Human Services and Recreation, and (3) Public Safety--represent 11 percent of the expenditures.




The person who fills the newly created Chief Technology Officer position will face significant challenges, which he or she will need to resolve successfully if the City is to use information technology most effectively. These challenges include:

**Enlarging the City's view of information technology**: Over the next few years, the City will need to move from the more narrow confines of information technology, with its focus on data processing and computer systems, into the broader world of information management -- a world which encompasses all creating, collecting, disseminating and using of information. Such a move could reduce the City's costs of managing information and enable the City to more effectively meet its key business objectives. Making this move will require the City to (1) emphasize reengineering entire processes rather than using technology to automate a current function, (2) incorporating a more global interdepartmental perspective in information technology and (3) giving even greater consideration to the information needs of line managers and workers.

[1] Legislative department is included in Addendum B.

**Applying Long Term Management Goals**: To apply the City's long term management goals to managing information technology, the Chief Technology Officer will want to:

- ensure the departments develop and use an appropriate set of regularly updated outcome, efficiency and effectiveness performance measures to assess how well information management activities are supporting the departments in carrying out their missions;

- identify, develop and maintain appropriate data, including a standardized measurement of costs, to routinely measure both the City's investments in information technology and the "return" the City obtains on these investments, so that he or she can evaluate whether the investments are achieving the benefits the City expected; and

- develop a long term benchmarking strategy. This year the City is benchmarking three aspects of its technology -- distributed computing, the data center, and telecommunications. The Chief Technology Officer will have to develop a long term benchmarking strategy that ensures the City obtains the most useful benchmarking information at the most competitive costs.

**Addressing Immediate Problems:** In the shorter term, the Chief Technology Officer will need to give immediate attention to several pressing problems, including:

- ensuring that all City systems will operate appropriately in the next century. As is common in the computer world, many presently cannot recognize dates after 1999.

- acquiring the needed technical skills. The City is finding it more and more difficult to attract and retain the full complement of skilled personnel it needs in information technology. The Chief Technology Officer will need to develop a strategy for acquiring the technical skills the City needs. This strategy may include more outsourcing and greater use of consultants.

- developing a strategic plan for the future use of the City's mainframe computer system as applications move off of it. The City is currently in the process of either modifying or replacing its major mainframe applications: the Seattle Financial Management System, the Customer Information System and the Combined Utility Billing System. These systems consume 90-95 percent of the City's mainframe computing power. Portions of these applications are expected to move off the mainframe computer, thereby creating excess capacity. The City, therefore, needs an integrated long term strategic plan on the future use of the mainframe system to account for the impact of replacements, enhancements, or additions to present systems.

- improving the quality of data on information technology expenditures and inventory. Currently, obtaining data on the City's information technology expenditures and inventory requires a great deal of work. The Chief Technology Officer will need to work with the departments to ensure that (1) each department understands the value of obtaining and maintaining data on information technology expenditures and inventory and, subsequently, allocates the resources necessary to capture it; and (2) this data is uniform throughout the City to permit easy aggregation and comparison. Good, consistent data is needed for the City to: (1) understand its technology environment; (2) use performance measures and benchmarks; (3) determine return on investment; and (4) incorporate future technology successfully.

**Providing Appropriate Authority:** The Mayor and City Council need to ensure that the Chief Technology Officer has appropriate authority to implement information management across departmental boundaries. The challenge for the City will be to find the right balance between the authority needed by the Chief Technology Officer and the flexibility needed by the departments.

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## PURPOSE

Although the City's largest 17 departments are spending between $111 thousand and $12.3 million annually on technology (computers and computerized systems) to provide timely and efficient services, the amounts which the City's many departments spend for information technology are not readily available, and the City has not aggregated the departmental amounts into a single City-wide figure. As a result, how much the City spends on information technology has not been readily apparent, nor has it been clear City-wide what the City is buying with its information technology dollars. Therefore, at the request of the Chair of the City Council's Technology and Telecommunication Committee, the Office of City Auditor gathered and analyzed data on what City departments are spending for information technology. In addition, the Department of Administrative Services is conducting four other studies of information technology;[2] we are assisting the Department in one of these.[3] Our initial discussions with departmental specialists in information technology led us to expand our work to include an attempt to identify the principal challenges facing the City and the new Chief Technology Officer in information technology.

## SCOPE AND METHODOLOGY

We included in this study, all City departments with over $100,000 in electronic data processing equipment,[4] except for the Legislative Department (for Legislative Department data, see Addendum B). We analyzed the data by (1) individual departments and (2) the five program areas designated in the City's budget. Those programs and the respective departments we studied are:

Public Safety
- Fire
- Police
- Municipal Court

Health, Human Services and Recreation
- Library
- Seattle Center
- Parks and Recreation
- Housing and Human Services

Development, Neighborhoods and Planning
- Construction and Land Use (DCLU)
- Neighborhoods

Utilities and Transportation
- Engineering
- Water
- City Light

General Government
- Administrative Services (DAS)
- Personnel
- Finance
- Office of Management and Planning (OMP)
- Law

[2] These involve three separate studies to benchmark (1) distributed computing services, (2) the operations of the data center, and (3) telecommunications, along with a study of how to optimize distributed computing services.

[3] The Department of Administrative Services will publish the results of this study in a report. For this study, which benchmarks distributed computing, we worked with nine current departments to collect expenditure data for six City sites: (1) the new Administrative Department site, which will include the current departments of Finance, Personnel, and Administrative Services; (2) the new Combined Utilities Department site, which will include most of the current Engineering Department and the Water Department; (3) the Municipal Court, (4) the Police Department (5) the Department of Construction and Land Use and (6) Seattle City Light. These nine departments spend 71 percent of the City's overall annual budget.

[4] According to a 1995 inventory of data-processing equipment which the City's Risk Manager provided.

These 17 departments spend 91 percent of the City's annual budget. We limited our study to collecting actual expenditures for the years 1993, 1994, and 1995 and budgeted expenditures for 1996.

To determine the amount of money the City is spending on information technology, we sent a questionnaire to each of these departments. To ensure that the data the departments provided us reasonably reflected their expenditures, we discussed with each department beforehand how to respond to questions. We discussed how to identify the sources of data for each question and resolved with the department any questions or difficulties. For nine of the 17 departments[5] we took additional steps to verify the data the departments provided, including

- identifying the methodology the department used to answer the questions;
- ascertaining the adequacy and availability of backup documentation;
- comparing the data the department provided to the backup documentation and to data in the Seattle Financial Management System;
- comparing data across the departments to identify inconsistencies; and
- discussing with a consultant[6] the data which her prior experience led her to regard as inconsistent.

We did not verify the data departments provided us regarding the costs of major application systems already in place, under development or in the planning stage. We assigned all costs to the department making the expenditure even if the expenditure benefited another department; for example, we assigned all Human Resource Information System costs to Personnel. We included all information technology expenditures, even those made with grant monies; for example, the Library's expenditures included grant money it received for the Center for Technology.

In analyzing and evaluating costs, we grappled with the issue of whether to show the Department of Administrative Services costs within the Department or to distribute them out to all the other departments which use the Department's services. In the body of this report we chose to leave the costs solely within the Department of Administrative Services. In this way, we present a more accurate picture of the City's total information technology expenditures and of the amount which the Department of Administrative Services spent. In taking this approach, however, we understate the expenses of the other departments by the amounts of the often significant Department of Administrative Services charges. To compensate, in Addendum C we analyze the City's costs both ways -- first assigning the Department of Administrative Service charges to the other departments and then keeping them solely within the Department of Administrative Services.

In the course of reviewing departmental spending for information technology, we broadened our discussions with the departments' key technology personnel to identify the principal challenges facing the new Chief Technology Officer. We also reviewed reports and articles on managing information systems by the United States General Accounting Office, the National Academy of Public Administration, the Gartner Group, and the City's Office of Management and Planning (in particular,

[5] The nine departments which participated in the Department of Administrative Services study benchmarking distributed computing

[6] This consultant was working with us and the Department of Administrative Services in the study on benchmarking distributing computing.

City of Seattle Technology Environment: March 14, 1996, which describes major issues the City faces in managing information technology). Finally, we discussed the issues we identified with officials of the Department of Administrative Services, who concurred in their significance.

## RESULTS OF OUR WORK

In 1995, the 17 departments we included in our review spent over $50.7 million for information technology.[7] This figure is a conservative one and does not include spending for other technologies. Nearly half of this money went to support information technology in the City's utilities and transportation program. Information technology is labor intensive, with 31 percent of the City's information technology expenditures going for hardware and software. The remaining 69 percent pays for salaries (including benefits and training of technology staff) and consultants (including contract staff). We noted a peaking of hardware expenditures in 1995, a significant continuous increase in software expenditures from 1993 to 1996, and considerable year-to-year variation in the level of consultant fees. At considerable cost, the City has brought on line a variety of major systems to improve its efficiency and the quality of its customer services, and it is developing more such systems. As each new system comes on line, the total cost of maintaining the City's systems increases -- a cost of doing business in an information technology world.

### *$50.7 Million For Information Technology Is A Conservative Estimate*

The $50.7 million which the 17 departments in our study spent on information technology in 1995 provide a conservative estimate of total spending for information technology. Identifying the exact amount of information technology spending involves sometime difficult decisions regarding what staff expenditures to include and how much to include of the costs in general categories, such as subscriptions or supplies. Our staffing cost figures include only those staff whom we could easily identify as information technology personnel -- primarily staff belonging to a department's information services unit. What makes this a conservative figure for information technology staffing is the fact that a number of other staff spend a considerable amount of their time on activities that involve developing/maintaining information technology. For instance our figures do not capture the costs associated with:

- the time administrative assistants spend developing computer applications (such as a web page or an automated timesheet) and advising other staff on how best to use Microsoft Word and Excel, and

- the often very significant amount of time some staff with engineering or accounting titles spend developing and administering common data bases, sometimes through customized programs, or administering departmental portions of the Seattle Financial Management System.

We also found it difficult to capture and categorize with confidence other costs for information technology. For instance, an office may purchase a series of computer software manuals or subscribe to computer magazines for help in mastering certain applications. Or an office may

[7] Since this figure includes Department of Administrative Services expenses but not charges to other departments it shows the total City expenditures for information technology. See Scope and Methodology for expanded discussion of this point.

purchase glare screens for its computer monitors or rubber pads for computer "mouses." These costs may appear in such categories as subscriptions and supplies rather than in categories we could more readily identify as technology expenditures.

The $50.7 million in costs we identified is only a part of the City's total technology expenditures and does not include expenditures for City Light's system control center, the Department of Administrative Services' telephone network and 800 megahertz radio system. As shown below, adding those costs to information technology costs brings the City's expenditures on technology up to $71.3 million:

| | |
|---|---|
| Information Technology | $50.7 million |
| System Control Center -- City Light | $ 5.2 million |
| Telephone Network -- Administrative Services | $ 8 million |
| 800 Megahertz Radio System | $ 7.4 million |
| **Total** | **$71.3 million** |

## PROGRAMS[8]

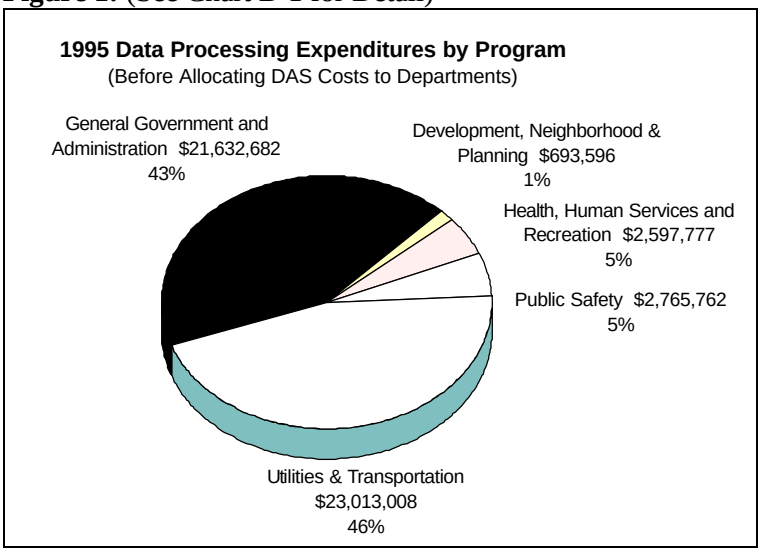
### *Eighty-Nine Percent of Information Technology Dollars Went to Support Two City Programs*

As Figure 1 shows, in 1995 the largest portion of spending for information technology, 46 percent, went to support the City's Utilities and Transportation program. The second largest, at 43 percent, went for General Government and Administration, primarily for the operations of the City's data center, the data processing services which the Department of Administrative Services provides to various departments and the Human Resources Information System services that the Personnel Department provides the other departments. Spending on the three other major categories ranged from approximately one percent to five percent of total information technology spending. (See Addendum C, Charts A-1 and B-1 for expenditures by department.)

As a percent of budget, departments spent between 0.7 percent (Fire) to 51.8 percent (Personnel). In relation to staff (FTE), departments spent between $524 (Fire) and $40,014 (Personnel). Personnel's 1995 costs are extraordinarily high due to the Human Resource Information System being implemented. (See Addendum C, Charts A-3, B-3, A-4 and B-4 for more information on departmental costs as a percent of budget and per staff.)

[8] See Scope and Methodology Section for discussion on how this data was collected and steps taken to verify the data.

**Figure 1:** (See Chart B-1 for Detail)

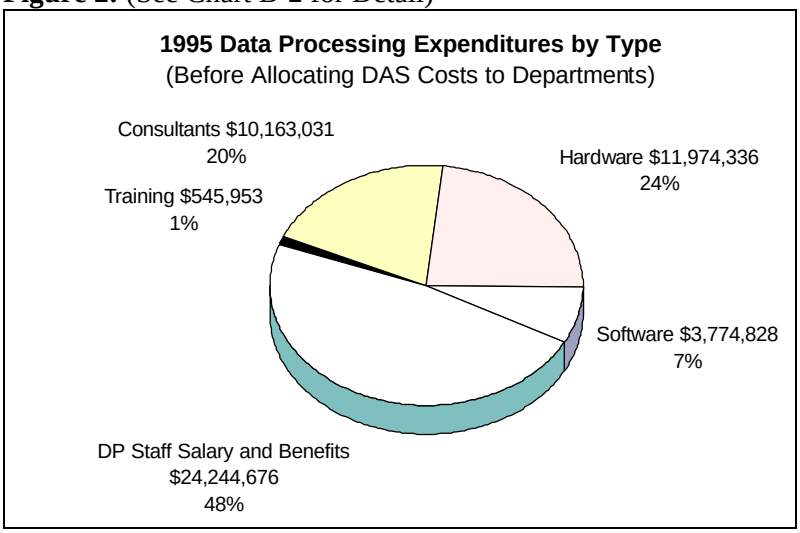



## COMPONENTS[9]

### *Majority of Technology Expenditures Personnel and Consultant Related*

The majority of the City's information technology expenditures are personnel and consultant related as shown in Figure 2, with the majority, 69 percent, paying for salaries and benefits of data processing staff (48 percent), training of data processing staff (1 percent) and consultants (20 percent). Thirty-one percent of the City's expenditures go for hardware (24 percent) and software (7 percent). (See Addendum C, Charts A-2 and B-2 for expenditures by type.)

**Figure 2:** (See Chart B-2 for Detail)




[9] See Scope and Methodology Section for discussion on how this data was collected and steps taken to verify the data.

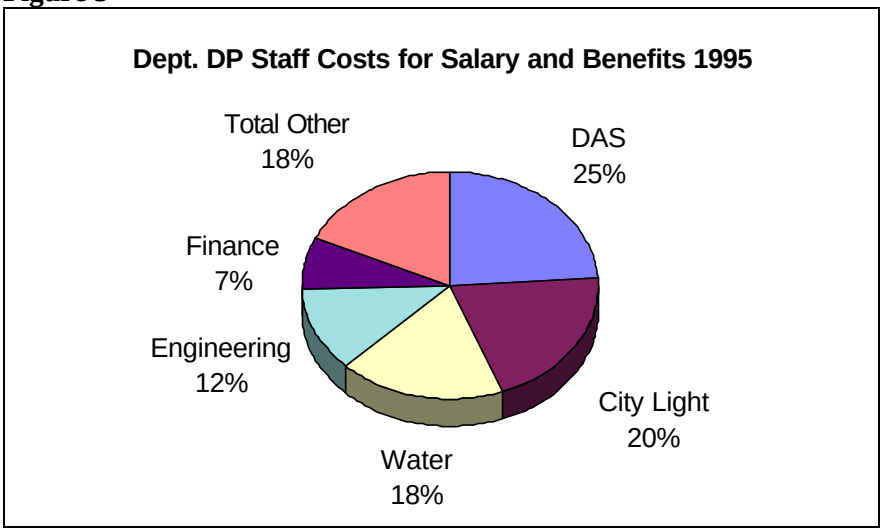
### *Most of the City's Technology Salary Expenditures Are In Five Departments*

Departmental expenditures for salaries and benefits of data processing staff totaled over $24 million in 1995. As Table 1 and Figure 3 show, five departments account for the majority of these expenditures. Our staffing cost figures include only staff whom we could easily identify as information technology personnel, primarily staff belonging to departments' information services units.[10]

Table 1: Data Processing Staff Salaries and Benefits in 1995

| Department | Staff Salaries and Benefits |
|---|---|
| Administrative Services (DAS) | $5,800,000 |
| City Light | $4,892,316 |
| Water | $4,434,550 |
| Engineering | $2,944,779 |
| Finance | $1,799,000 |
| Total Other | $4,374,031 |
| **TOTAL** | **$24,244,676** |

**Figure 3**




### *Spending for Information Technology Hardware Peaked in 1995*

Annual hardware expenditures for the 17 departments in our review ranged from $8.7 to $9.5 million in the years 1993-1996 with the exception of 1995 when they surged to $11.9 million. As Figure 4 reflects, the 1995 surge resulted principally from significant increases in hardware spending by City Light and the Department of Administrative Services. (See Addendum A and D for expenditure detail by department.)

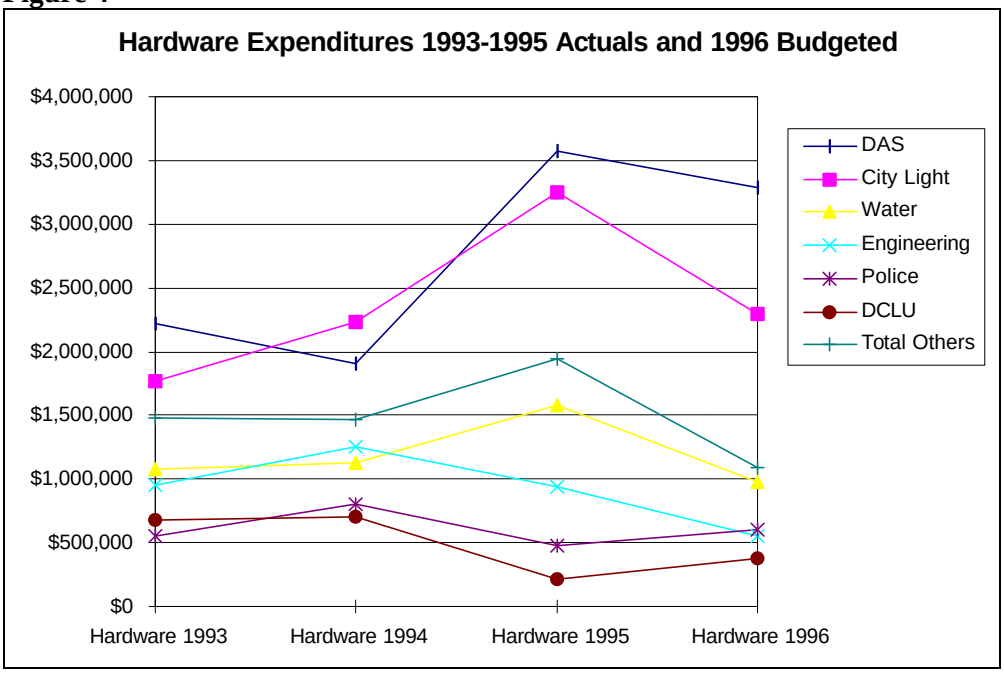
- In line with its Information Technology Strategic Plan, City Light replaced 250 outdated computers with faster models. In 1995, City Light also replaced 150 dumb terminals (workstation terminals)

[10] As we discussed above in the initial section, this makes for a very conservative figure because many other staff spend considerable time on activities that involve developing or maintaining information technology.

with computers as a means of eliminating recurring annual Department of Administrative Services charges of approximately $775,000.

- In 1995 the Department of Administrative Services installed a high-speed data communication network, which linked approximately 15 different sites, over 100 local area networks (LANs) and over 5,000 computing devices.

**Figure 4**

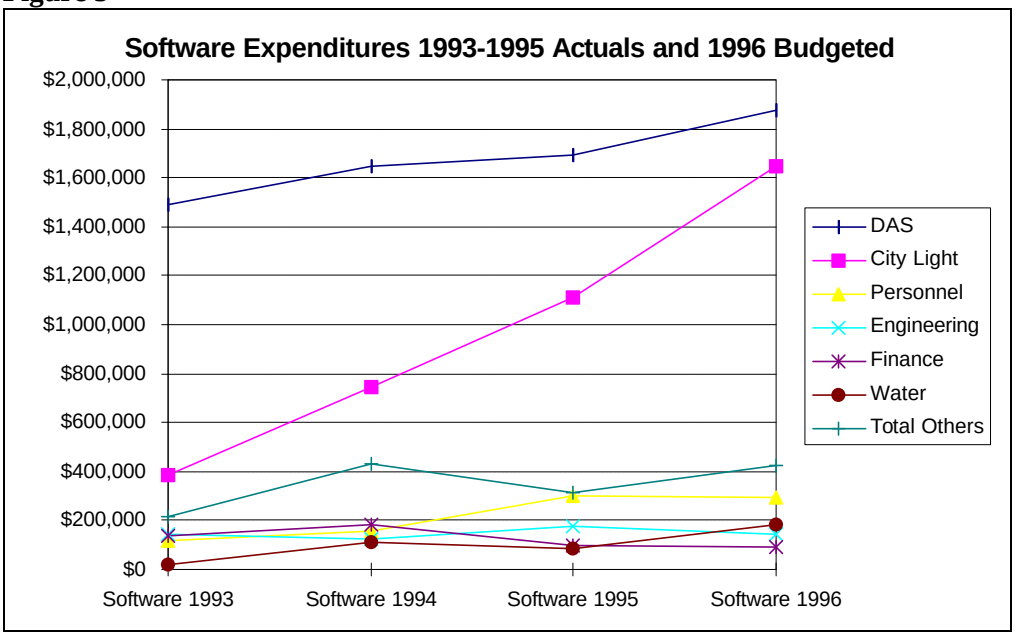



### *Software Spending Has Increased Significantly Since 1993*

Since 1993, the annual amounts which the 17 departments in our review spent for information technology software increased from a little over $2.5 million to just under $4.7 million. As Figure 5 shows, the leap in City Light's software spending from about $400,000 in 1993 to nearly $1.6 million in 1995 accounts for most of this increase.

- In 1995 City Light purchased Auto Cad software for computerized design, Systems Network Architecture Software for communicating to the mainframe, and Geographic Information System software. In addition, the department began purchasing maintenance agreements for Microsoft software.

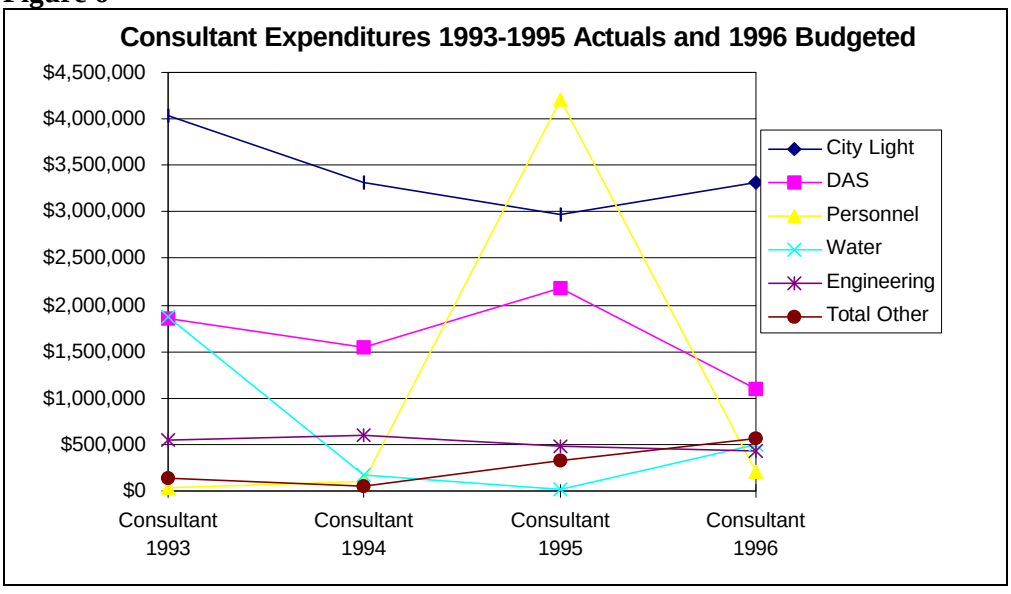
**Figure 5**




### *Consultant Fees Vary Significantly From Year to Year*

The annual fees which the 17 departments in our review paid to consultants from 1993-1996 varied significantly. The 1993 figure of $8.5 million fell to $5.8 million in 1994, rose to $10.1 million in 1995 and fell again to $6.1 million in the 1996 budget. As Figure 6 shows, the totals reflect similar variation in the spending of the principal departments, particularly Personnel, Water, and City Light. A department's consultant fees rise and fall as information technology projects move from design to final completion. In 1995, the Personnel Department spent approximately $4.2 million for consultants to support its implemention of the Human Resource Information System.

**Figure 6**



## APPLICATIONS[11]

The City has over $125 million in application systems developed, in development, or planned for development.

### *The City's Spending for Information Technology Supports a Variety of Major Systems*

The City's information technology spending supports a variety of major systems, which the City has purchased or developed over the years. Some of these systems individually cost the City well over $1 million:

- the Seattle Financial Management System -- a City-wide financial system which maintains the City's financial accounts (total cost: over $14 million);

- the Distribution Automated Mapping System -- a City Light system for analyzing electrical loads and designing and maintaining facilities so as to reduce outages and improve delivery (total cost: nearly $12 million);

- the Human Resources Information System -- the City's personnel and payroll system (total cost: $9 million).

- the Central Geographic Database -- a City-wide system which provides a digital map to City departments and utilities for many business applications, including infrastructure management and emergency vehicle ("911") dispatch (total cost: nearly $5 million);

- the Combined Utility Billing System -- a billing system for solid waste, water, and drainage accounts (total cost: $3.3 million)

- the Customer Information System -- a City Light system for customer billings (total cost: $10 million)

- the Municipal Court Information System -- a system which handles a variety of court activities, including findings and fines (total cost: $4.5 million);

- the Material Management System -- a City Light system for managing inventory, forecasting and planning (total cost: nearly $2 million); and

- Computer Assisted Dispatch -- a Police Department system which keeps track of emergency ("911") calls and helps manage field resources (total cost: nearly $2.6 million).

- Computer Assisted Dispatch -- a Fire Department system which keeps track of emergency "911" calls and includes the Automated Vehicle Locator System (total cost: nearly $2.7 million).

In addition to the major systems above, which have cost the City $65.1 million, the City has developed numerous applications costing less than $1 million.

[11] See Scope and Methodology Section for discussion on how this data was collected and steps taken to verify the data.

### *The City Has Several Costly Major Applications In Development*

As Table 2 shows, City departments are presently developing a number of major systems, each expected to cost at least $1 million, with some running as high as $20 million. The departments have projected total costs of these projects under development at close to $50 million. This figure does not include the redevelopment of the Seattle Financial Management System (SFMS). The departments project that other, smaller systems, costing less than $1 million each, will add more than an additional $11 million to the total costs of applications coming on line in the next several years.

**Table 2: Application Systems Projects Under Development**

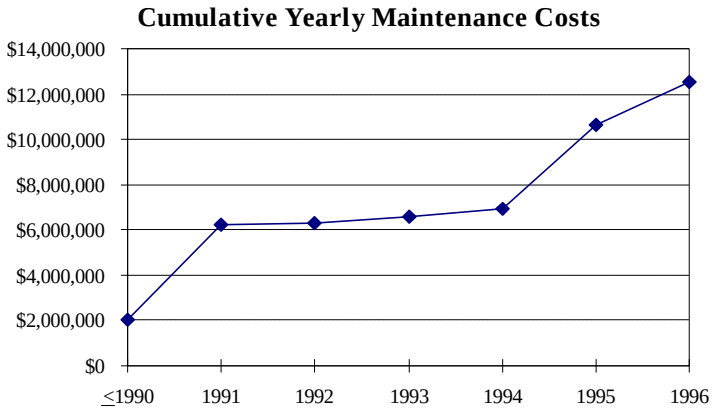
| Name of Application | Purpose(s) | Projected Development Cost | Incurred to Date (6/96) | System To Go on-line |
|---|---|---|---|---|
| Executive and Management Information System | to provide information for managing and to replace various City Light computer budgetary applications | $1.1 million | $134,000 | December 1998 |
| Laboratory Automation | to automate microbiology, chemistry and limnology functions at the Water Quality lab | $1.2 million | | 1998 |
| Conservation Tracking System | to manage information for City Light conservation programs and customer inquiries | $1.3 million | $776,000 | August 1996 |
| Document Management | to provide an enterprise-wide approach to the management of documents | $2.0 million | | portions in 1996. |
| Sewer/Drainage Geographic Information System | to provide data-mapping and spatial analysis for the City's drainage and wastewater infrastructure | $2.9 million | $2.9 million | 1996 portions in 1994 |
| Consolidated Customer Service System | to develop a City-wide customer service system to replace separate systems for City Light and the other City utilities and to provide for 21st century dating | $20 million | $56,400 | To be determined. |
| Supervisory Control Data Acquisition | to automate the collection of water system operational data; to automate device monitoring in the field; and to allow for sites that do not require round the clock staffing | $20 million | | portions in 1998. |
| Redevelopment of Seattle Financial Management System | to provide for system replacement or enhancement, including 21st century dating | Not determined | $0 | January 1999 |
| **TOTALS** | | **$48.5 million** | **$3.9 million** | |

### *The Cost of Maintaining Major Applications Grows With Each New Acquisition*

As Figure 7 shows, the yearly cost of maintaining major applications, which currently exceeds $12.5 million, continues to grow yearly, as each new application comes on line. This continuing growth is essentially the cost of doing business in an information technology world.

**Figure 7**

| | |
|---|---|
| ≤1990 | $2,057,000 |
| 1991 | $6,263,500 |
| 1992 | $6,332,600 |
| 1993 | $6,570,771 |
| 1994 | $6,932,771 |
| 1995 | $10,622,946 |
| 1996 | $12,531,346 |




## THE NEW CHIEF TECHNOLOGY OFFICER FACES SIGNIFICANT CHALLENGES

The person who fills the newly created Chief Technology Officer position will face significant challenges, which he or she will need to meet and resolve successfully if the City is to use information technology most effectively. These challenges include

- enlarging the City's view of information technology to encompass the broader vision of information management;
- applying the City's long term management goals to the information technology and information resources; and
- successfully dealing with several immediate problems.

Meeting these challenges successfully will require that the Chief Technology Officer have the appropriate level of authority to implement information management across departmental boundaries.

### *Moving from Information Technology to Information Management*

Over the next few years, the City will need to move from the more narrow confines of information technology, with its focus on data processing and computer systems, into the broader world of information management -- a world which encompasses all creating, collecting, disseminating and using of information. Such a move could reduce the City's costs of managing information and enable the City

to more effectively meet its key business objectives. Making this move will require the City to (1) emphasize reengineering entire processes rather than using technology to automate a current function, (2) adopt a more global interdepartmental perspective toward information technology and (3) give even greater consideration to the information needs of line managers and workers.

*Steps Taken In The Right Direction*

The City has already taken steps in the right direction in its development of both the Human Resources Information System and the Consolidated Customer Service System for the City's utilities. In both cases the City gathered a diverse group from various City departments to identify core system requirements and made a concerted effort to recognize the customer's perspective and to reengineer entire processes rather than just automating current manual tasks. In addition, departments have cooperated in information technology applications through vehicles like the Backbone Steering Committee[12] and the Data Processing Advisory Committee/Standards Committee (DPAC)[13].

Considerably more remains to be done for the City, its departments and the new Chief Technology Officer, to move fully into the environment of information management. Most immediately, departments need to increase their coordination on information technology issues with cross-departmental ramifications. Examples include data warehousing, document management and imaging, and similar systems with incompatible data. The City also needs a process to ensure that line managers participate actively in the development of new systems -- particularly in defining information needs and determining how an application will actually work.

*Moving From A Vision Of Automating Day-To-Day Activities To Redesigning Systems*

More fundamentally, departmental vision will need to enlarge from acquiring information technology for automating their day-to-day activities to designing an information architecture to support their missions. This process will involve developing both short term and long term plans for attaining streamlined, reengineered departmental operations which effectively use information management and information technology. The City's experiences in developing the Seattle Financial Management System and automating the Department of Construction and Land Use's permit system both illuminate this point, though from different directions:

- According to a member of the team responsible for developing the Seattle Financial Management System, several accounting managers were adamant that the new system had to provide them with reports which looked exactly the same as those in the system being replaced and the process itself not be changed. These managers believed that their process was the only one that could meet their regulatory or other requirements. As a result, the City missed an opportunity to reengineer its processes.

- Recently the consultant whom the Department of Construction and Land Use hired to help design and procure an automated permit system recommended reengineering the process itself before attempting to automate it. This consultant's report indicated that far greater savings would result from reengineering than from simply automating the present process. The Department of

[12] An interdepartmental committee of information technology managers that identify and resolve issues related to the operation of the City's high-speed data communication network.

[13] An interdepartmental committee of information technology managers that sets City-wide data processing policies and standards.

Construction and Land Use has accepted this recommendation and will reengineer as part of its automation effort.

*Training On Information Management Required*

Enlarging the City's vision from information technology to information management will require broad-scale training -- something well beyond simply training staff how to use available technology most effectively. In particular, department directors and their senior managers will need training in the benefits of actively managing information resources; they will then be more likely to incorporate information management into their departments' management plans, thereby integrating information technology into decision making throughout the organization. They will also need help in regularly assessing how well their departments are performing their missions so as to identify critical weaknesses and problems and link them to the potential contributions of current and emerging information technology. Field-level staff will need training in realistically assessing what information they need to do their jobs. Even technical managers will need to broaden their knowledge of information technology to include the more global concerns of information management.

### *Applying the City's Long Term Management Goals to Managing Information Technology and Information Resources*

To improve the City's information management the most fully over the longer term, the new Chief Technology Officer will need to apply the City's long term management goals to the managing of information technology and information resources. In Seattle Works! a City-wide task force established long term goals for improving City management. In essence Seattle Works! calls for fully integrating planning, budgeting, and evaluation processes into a comprehensive management framework for making key program and investment decisions. In applying Seattle Works!, the new Chief Technology Officer will particularly need to

- ensure the departments develop and use an appropriate set of regularly updated outcome, efficiency and effectiveness performance measures to assess how well information management activities are supporting the departments in carrying out their missions;

- identify, develop and maintain appropriate data, including a standardized measurement of costs, to routinely measure both the City's investments in information technology and the "return" the City obtains on these investments, so that he or she can evaluate whether the investments are achieving the benefits the City expected; and

- develop a long term benchmarking strategy. This year the City is benchmarking three (3) aspects of its technology -- distributed computing, the data center, and telecommunications. To conduct these studies, the City has obtained Real Decisions, a subsidiary of the Gartner Group, at a cost of $110,000. The Chief Technology Officer will have to develop a long term benchmarking strategy that ensures the City obtains the most useful benchmarking information at the most competitive cost.

### *Other Concerns Will Require The Chief Technology Officer's Immediate Attention*

In the shorter term, the Chief Technology Officer will need to give immediate attention to several pressing problems, including:

- ensuring that all City systems will operate appropriately in the next century. Many presently cannot recognize dates after 1999.

- acquiring the needed technical skills. The City is finding it more and more difficult to attract and retain the full complement of skilled personnel it needs. The Chief Technology Officer will need to develop a strategy for acquiring the technical skills the City needs. This strategy may include more outsourcing and greater use of consultants. It may also include reviewing compensation and working conditions and implementing more progressive personnel practices, such as creating career-development plans which provide avenues for advancement, and enlarging personnel positions ("broad banding") and redesigning job responsibilities to make work more challenging and meaningful.

- developing a strategic plan for the future use of the City's mainframe computer system. The City is currently in the process of either modifying or replacing its major mainframe applications; the Seattle Financial Management System, the Customer Information System and the Combined Utility Billing System. These systems consume 90-95 percent of the City's mainframe computing power. Portions of these applications are expected to move off the mainframe computer, thereby creating excess capacity. The City, therefore, needs an integrated long term strategic plan on the future use of the mainframe system to account for the impact of replacements, enhancements, or additions to present systems.

- improving the quality of data on information technology expenditures and inventory. Currently, obtaining data on the City's information technology expenditures and inventory requires a great deal of work. For example, the Department of Administrative Services estimated that compiling the data for its recent study to benchmark distributed computing required more than 1,000 staff hours City-wide. The Chief Technology Officer will need to work with the departments to ensure that (1) each department understands the value of obtaining and maintaining data on information technology expenditures and inventory and, subsequently, allocate the resources necessary to capture it; and (2) this data is uniform throughout the City to permit easy aggregation and comparison. Good, consistent data is needed for the City to: (1) understand its technology environment; (2) use performance measures and benchmarks; (3) determine return on investment; and (4) incorporate future technology successfully.

### *To Implement Information Management Effectively the Chief Technology Officer Will Need Appropriate Authority*

The Mayor and City Council need to ensure that the Chief Technology Officer has appropriate authority to implement information management across departmental boundaries. The challenge for the City will be to find the right balance between the authority needed by the Chief Technology Officer and the flexibility needed by the departments. Failing to provide the Chief Technology Officer with the "clout" to compel line managers to adhere to City-wide policies and standards and to the City's planning and budgetary decisions for information management may unduly compromise his or her effectiveness. The dangers of a weak Chief Technology Officer position include:

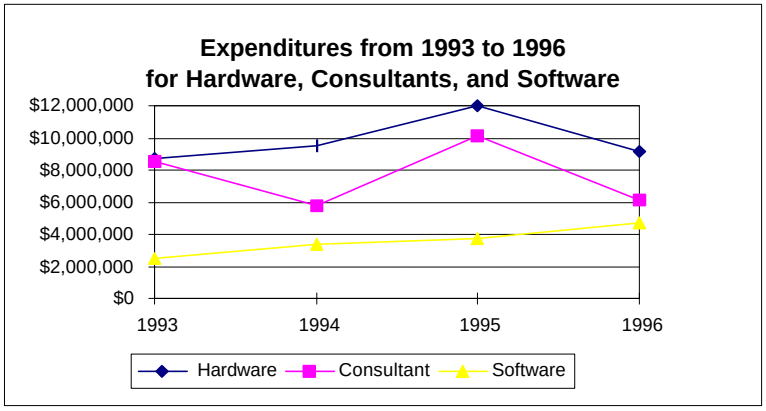
- incompatible departmental systems and data;
- a focus on departmental information technology goals at the expense of the City's broader information resource management goals; and,
- departmental spending which varies significantly from the plans the Chief Technology Officer approves during the budget process.

At the same time, departments will still need the flexibility to deviate from City policies and standards when their missions require such deviation such as keeping up with changes in technology which occur during a budget biennium and make the budget plan obsolete.

# ADDENDA

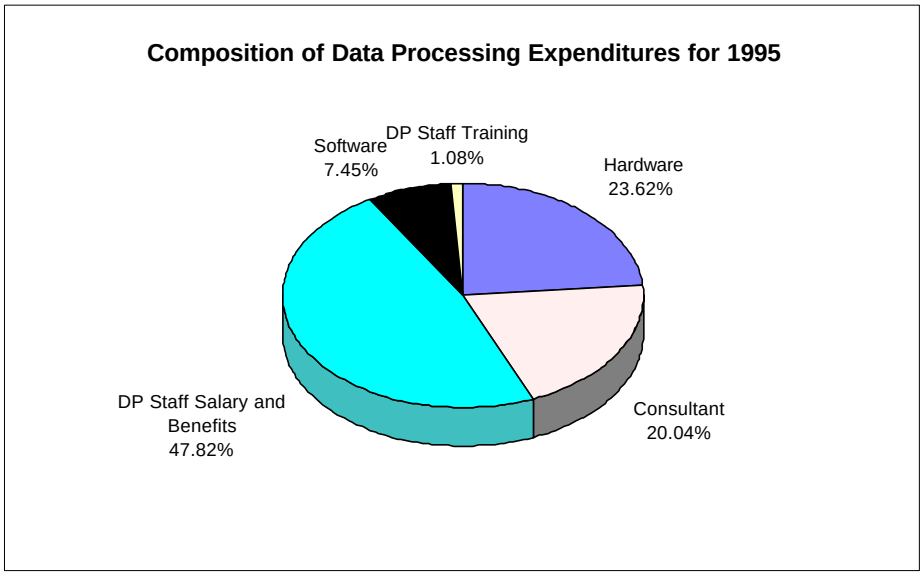
| Department | (All) |
|---|---|

| | Expenditure | | | | |
|---|---|---|---|---|---|
| Data | Hardware | Consultant | Software | Training | Grand Total |
| 1993 | $8,724,940 | $8,493,151 | $2,507,118 | $367,400 | $20,092,609 |
| 1994 | $9,498,743 | $5,810,763 | $3,393,659 | $574,551 | $19,277,716 |
| 1995 | $11,974,336 | $10,163,031 | $3,774,828 | $545,953 | $26,458,148 |
| 1996 | $9,192,247 | $6,093,107 | $4,671,833 | $567,102 | $20,524,289 |
| Total | $39,390,266 | $30,560,052 | $14,347,439 | $2,055,006 | $86,352,763 |



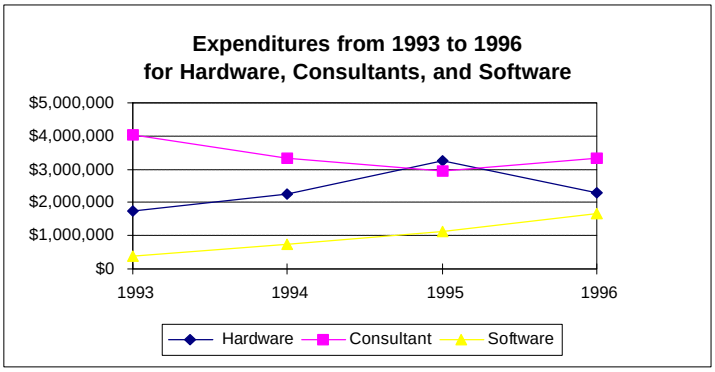

| Department | (All) |
|---|---|

| | Expenditure | | | | | |
|---|---|---|---|---|---|---|
| Data | Hardware | Consultant | DP Staff Salary and | Software | DP Staff Training | Grand Total |
| 1995 | $11,974,336 | $10,163,031 | $24,244,677 | $3,774,828 | $545,953 | $50,702,825 |
| Percent of Total DP Costs | 23.62% | 20.04% | 47.82% | 7.45% | 1.08% | 100.00% |



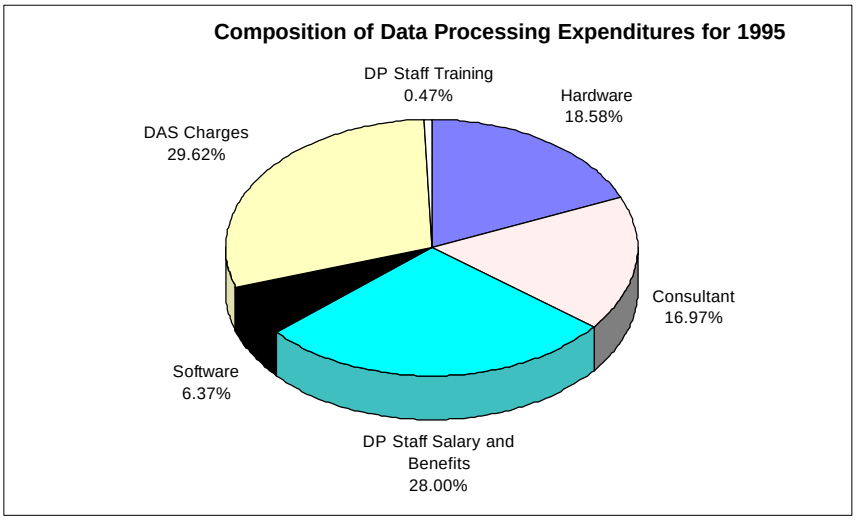
| Department | City Light |
|---|---|

| | Expenditure | | | | |
|---|---|---|---|---|---|
| Data | Hardware | Consultant | Software | Training | Grand Total |
| 1993 | $1,763,000 | $4,028,950 | $384,273 | $26,322 | $6,202,545 |
| 1994 | $2,235,913 | $3,319,141 | $743,233 | $88,217 | $6,386,504 |
| 1995 | $3,246,086 | $2,964,899 | $1,112,305 | $82,270 | $7,405,560 |
| 1996 | $2,293,300 | $3,315,045 | $1,649,418 | $19,554 | $7,277,317 |
| Total | $9,538,299 | $13,628,035 | $3,889,229 | $216,363 | $27,271,926 |



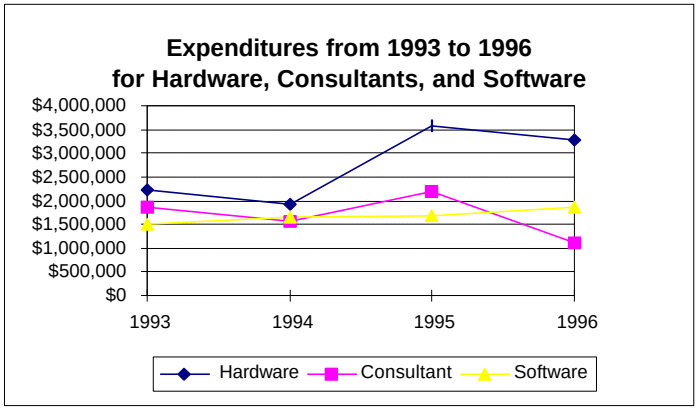

| Department | City Light |
|---|---|

| | Expenditure | | | | | | |
|---|---|---|---|---|---|---|---|
| Data | Hardware | Consultant | DP Staff Salary and Benefits | Software | DAS Charges | DP Staff Training | Grand Total |
| 1995 | $3,246,086 | $2,964,899 | $4,892,316 | $1,112,305 | $5,176,597 | $82,270 | $17,474,473 |
| Percent of Total DP Costs | 18.58% | 16.97% | 28.00% | 6.37% | 29.62% | 0.47% | 100.00% |



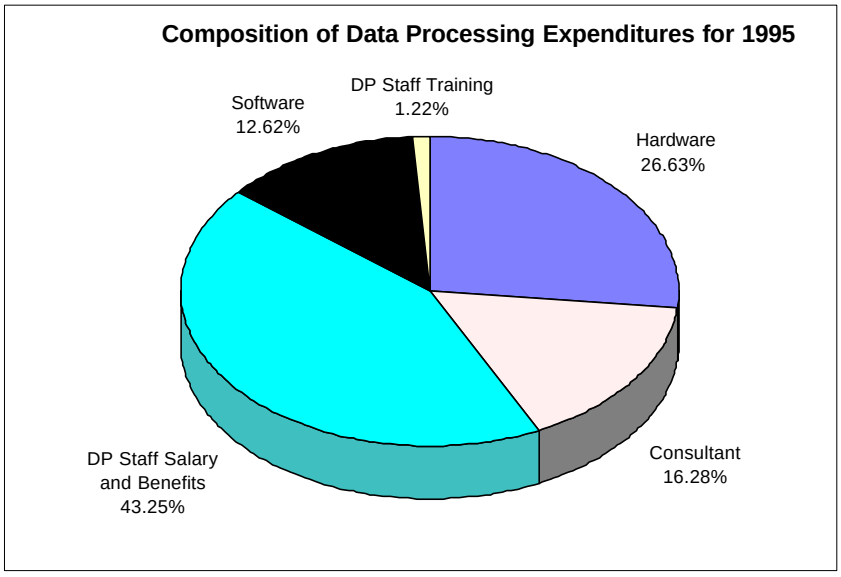
| Department | DAS |
|---|---|

| | Expenditure | | | | |
|---|---|---|---|---|---|
| Data | Hardware | Consultant | Software | Training | Grand Total |
| 1993 | $2,219,000 | $1,852,000 | $1,491,000 | $169,000 | $5,731,000 |
| 1994 | $1,910,000 | $1,549,000 | $1,646,000 | $247,000 | $5,352,000 |
| 1995 | $3,572,000 | $2,183,000 | $1,692,000 | $164,000 | $7,611,000 |
| 1996 | $3,284,000 | $1,104,000 | $1,878,000 | $270,000 | $6,536,000 |
| Total | $10,985,000 | $6,688,000 | $6,707,000 | $850,000 | $25,230,000 |



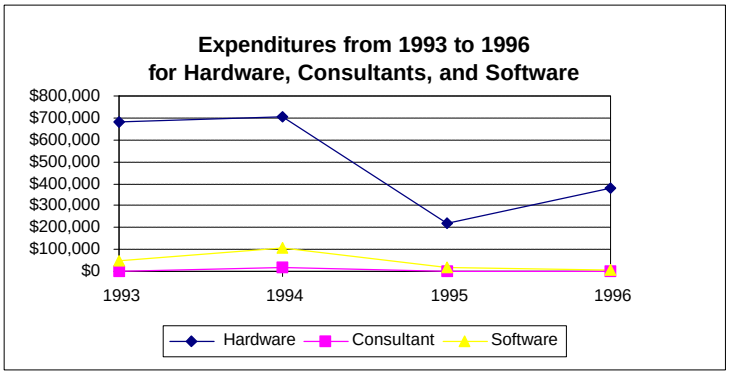

| Department | DAS |
|---|---|

| 1995 | Expenditure | | | | |
|---|---|---|---|---|---|
| | Hardware | Consultant | DP Staff Salary and Benefits | Software | DP Staff Training |
| Total | $3,572,000 | $2,183,000 | $5,800,000 | $1,692,000 | $164,000 |



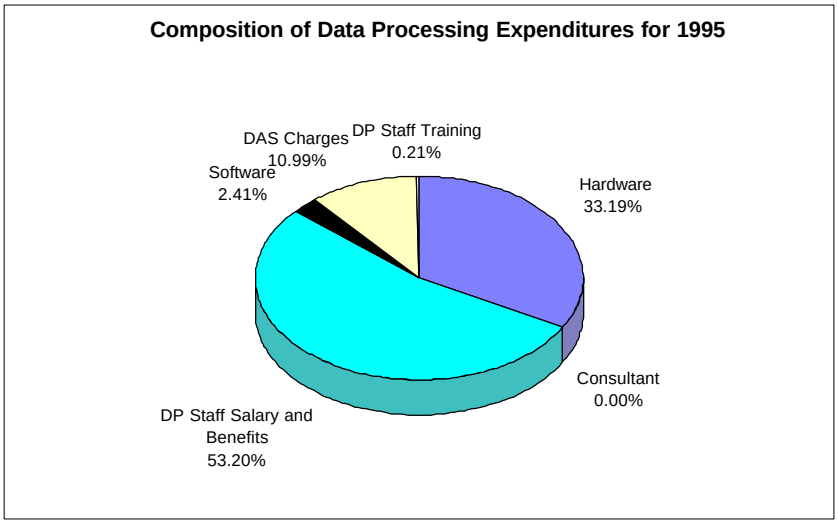
| Department | DCLU |
|---|---|

| | Expenditure | | | | |
|---|---|---|---|---|---|
| Data | Hardware | Consultant | Software | Training | Grand Total |
| 1993 | $682,572 | $0 | $46,156 | $110 | $728,838 |
| 1994 | $705,097 | $15,000 | $103,786 | $4,725 | $828,608 |
| 1995 | $217,243 | $0 | $15,758 | $1,363 | $234,364 |
| 1996 | $380,735 | $0 | $7,955 | $3,000 | $391,690 |
| Total | $1,985,647 | $15,000 | $173,655 | $9,198 | $2,183,500 |



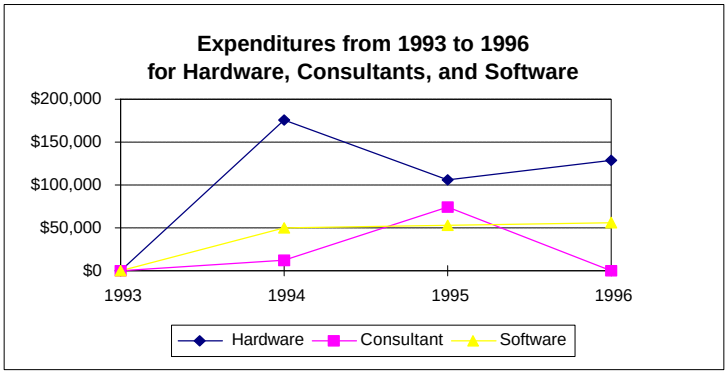

| Department | DCLU |
|---|---|

| | Expenditure | | | | | | |
|---|---|---|---|---|---|---|---|
| Data | Hardware | Consultant | DP Staff Salary and Benefits | Software | DAS Charges | DP Staff Training | Grand Total |
| 1995 | $217,243 | $0 | $348,240 | $15,758 | $71,921 | $1,363 | $654,525 |
| Percent of Total DP Costs | 33.19% | 0.00% | 53.20% | 2.41% | 10.99% | 0.21% | 100.00% |



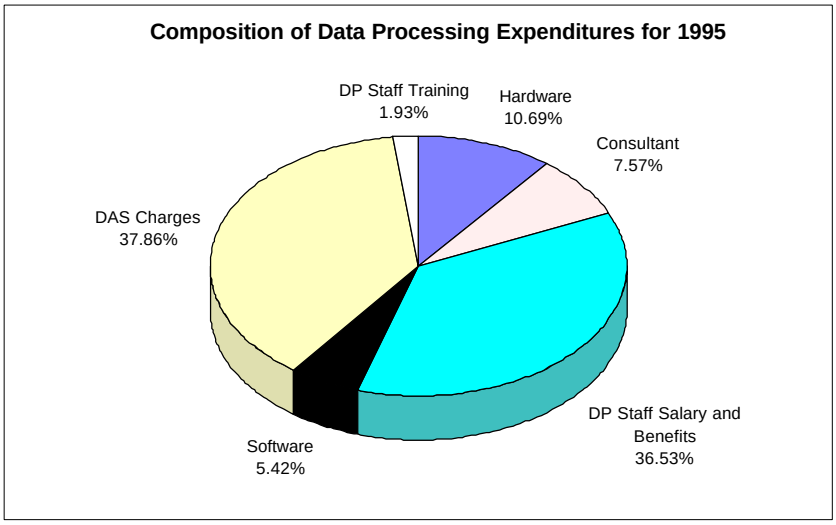
| Department | DHHS |
|---|---|

| | Expenditure | | | | |
|---|---|---|---|---|---|
| Data | Hardware | Consultant | Software | Training | Grand Total |
| 1993 | $0 | $0 | $0 | $5,689 | $5,689 |
| 1994 | $175,592 | $12,000 | $49,884 | $9,536 | $247,012 |
| 1995 | $105,958 | $75,000 | $53,679 | $19,169 | $253,806 |
| 1996 | $128,870 | $0 | $55,683 | $4,171 | $188,724 |
| Total | $410,420 | $87,000 | $159,246 | $38,565 | $695,231 |



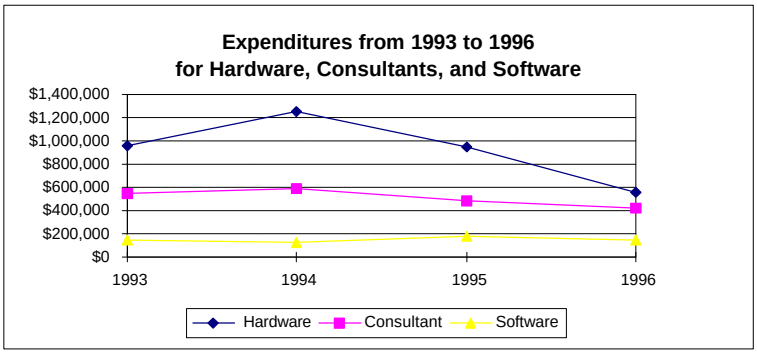

| Department | DHHS |
|---|---|

| | Expenditure | | | | | | |
|---|---|---|---|---|---|---|---|
| Data | Hardware | Consultant | DP Staff Salary and Benefits | Software | DAS Charges | DP Staff Training | Grand Total |
| 1995 | $105,958 | $75,000 | $361,936 | $53,679 | $375,126 | $19,169 | $990,868 |
| Percent of Total DP Costs | 10.69% | 7.57% | 36.53% | 5.42% | 37.86% | 1.93% | 100.00% |



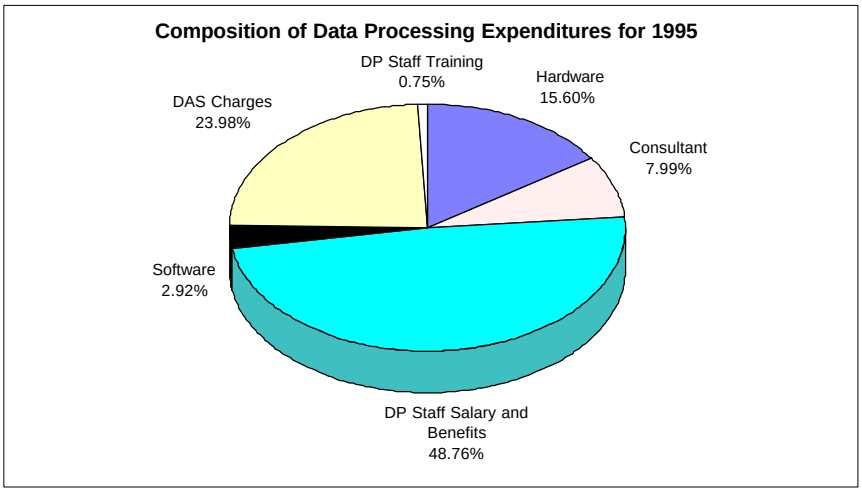
| Department | Engineering |
|---|---|

| | Expenditure | | | | |
|---|---|---|---|---|---|
| Data | Hardware | Consultant | Software | Training | Grand Total |
| 1993 | $956,739 | $550,113 | $142,692 | $39,123 | $1,688,667 |
| 1994 | $1,249,690 | $592,949 | $123,915 | $49,363 | $2,015,917 |
| 1995 | $942,441 | $482,553 | $176,434 | $45,160 | $1,646,588 |
| 1996 | $554,346 | $423,577 | $144,788 | $28,750 | $1,151,461 |
| Total | $3,703,216 | $2,049,192 | $587,829 | $162,396 | $6,502,633 |



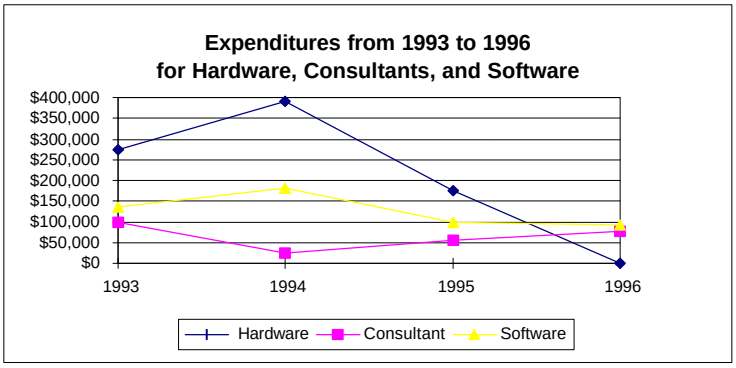

| Department | Engineering |
|---|---|

| | Expenditure | | | | | | |
|---|---|---|---|---|---|---|---|
| Data | Hardware | Consultant | DP Staff Salary and Benefits | Software | DAS Charges | DP Staff Training | Grand Total |
| 1995 | $942,441 | $482,553 | $2,944,779 | $176,434 | $1,448,536 | $45,160 | $6,039,903 |
| Percent of Total DP Costs | 15.60% | 7.99% | 48.76% | 2.92% | 23.98% | 0.75% | 100.00% |



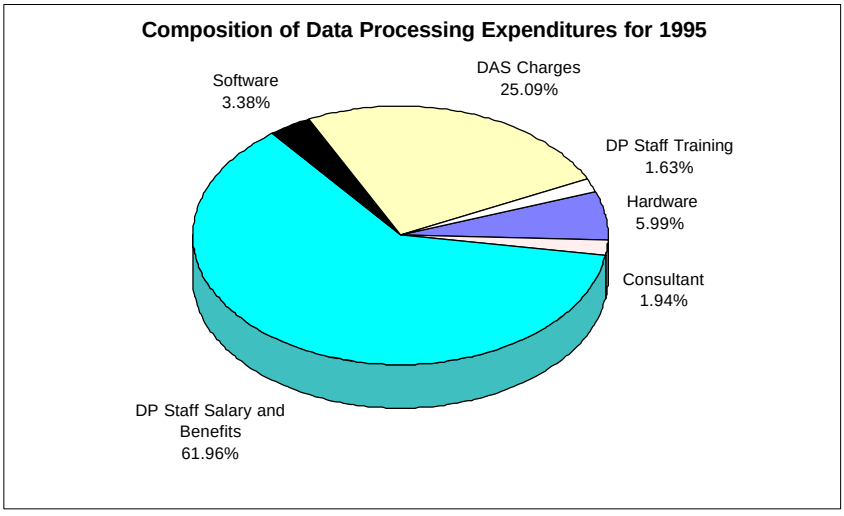
| Department | Finance |
|---|---|

| | Expenditure | | | | |
|---|---|---|---|---|---|
| Data | Hardware | Consultant | Software | Training | Grand Total |
| 1993 | $274,000 | $98,082 | $136,111 | $8,219 | $516,412 |
| 1994 | $391,000 | $24,718 | $181,879 | $56,791 | $654,388 |
| 1995 | $174,000 | $56,459 | $98,111 | $47,403 | $375,973 |
| 1996 | $1,034 | $75,485 | $92,404 | $38,483 | $207,406 |
| Total | $840,034 | $254,744 | $508,505 | $150,896 | $1,754,179 |



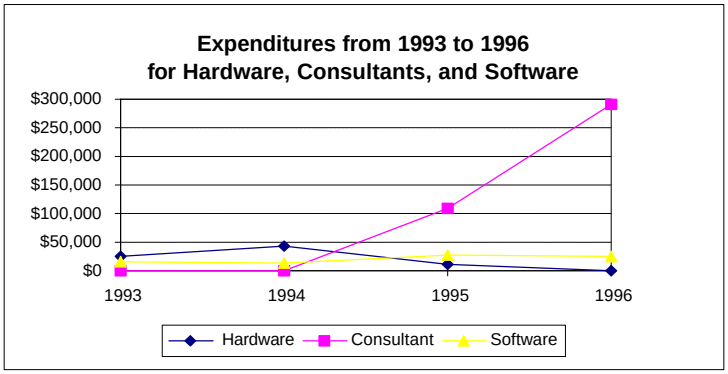

| Department | Finance |
|---|---|

| | Expenditure | | | | | | |
|---|---|---|---|---|---|---|---|
| Data | Hardware | Consultant | DP Staff Salary and Benefits | Software | DAS Charges | DP Staff Training | Grand Total |
| 1995 | $174,000 | $56,459 | $1,799,000 | $98,111 | $728,470 | $47,403 | $2,903,443 |
| Percent of Total DP Costs | 5.99% | 1.94% | 61.96% | 3.38% | 25.09% | 1.63% | 100.00% |



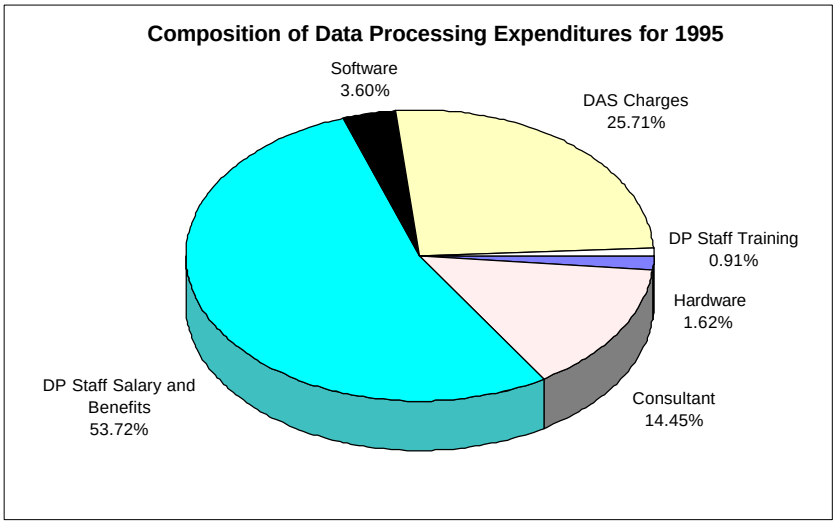
| Department | Fire |
|---|---|

| | Expenditure | | | | |
|---|---|---|---|---|---|
| Data | Hardware | Consultant | Software | Training | Grand Total |
| 1993 | $24,066 | $0 | $14,908 | $13,748 | $52,722 |
| 1994 | $43,530 | $0 | $12,879 | $10,931 | $67,340 |
| 1995 | $12,302 | $110,000 | $27,432 | $6,903 | $156,637 |
| 1996 | $0 | $290,000 | $24,800 | $14,656 | $329,456 |
| Total | $79,898 | $400,000 | $80,019 | $46,238 | $606,155 |



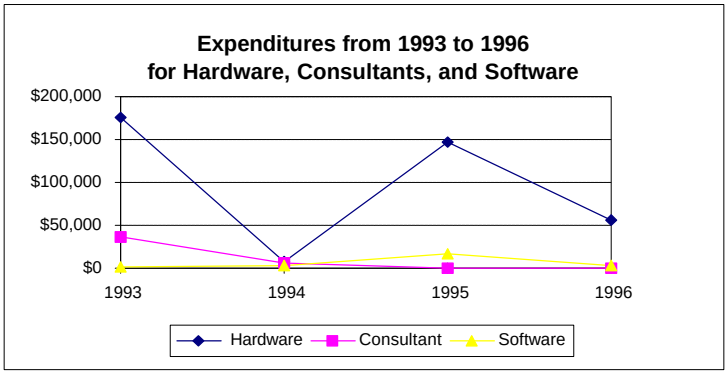

| Department | Fire |
|---|---|

| | Expenditure | | | | | | |
|---|---|---|---|---|---|---|---|
| Data | Hardware | Consultant | DP Staff Salary and Benefits | Software | DAS Charges | DP Staff Training | Grand Total |
| 1995 | $12,302 | $110,000 | $408,910 | $27,432 | $195,693 | $6,903 | $761,240 |
| Percent of Total DP Costs | 1.62% | 14.45% | 53.72% | 3.60% | 25.71% | 0.91% | 100.00% |



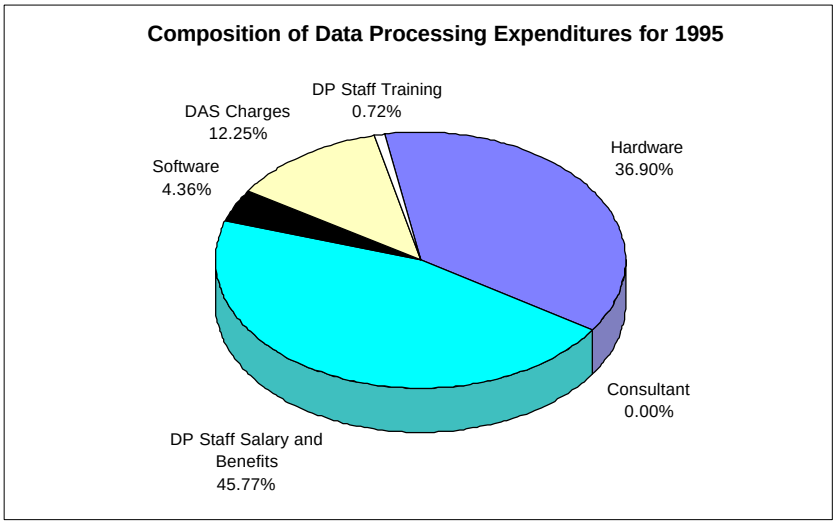
| Department | Law |
|---|---|

| | Expenditure | | | | |
|---|---|---|---|---|---|
| Data | Hardware | Consultant | Software | Training | Grand Total |
| 1993 | $176,226 | $35,775 | $1,796 | $4,405 | $218,202 |
| 1994 | $7,128 | $5,409 | $3,676 | $2,745 | $18,958 |
| 1995 | $146,951 | $0 | $17,360 | $2,865 | $167,176 |
| 1996 | $55,718 | $0 | $2,311 | $3,700 | $61,729 |
| Total | $386,023 | $41,184 | $25,143 | $13,715 | $466,065 |




| Department | Law |
|---|---|

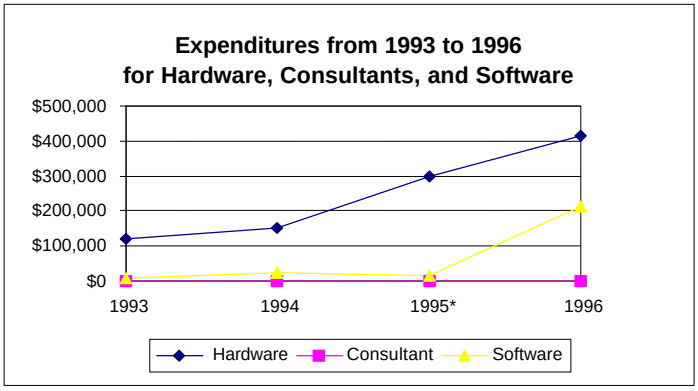
| | Expenditure | | | | | | |
|---|---|---|---|---|---|---|---|
| Data | Hardware | Consultant | DP Staff Salary and Benefits | Software | DAS Charges | DP Staff Training | Grand Total |
| 1995 | $146,951 | $0 | $182,254 | $17,360 | $48,794 | $2,865 | $398,224 |
| Percent of Total DP Costs | 36.90% | 0.00% | 45.77% | 4.36% | 12.25% | 0.72% | 100.00% |



| Department | Library |
|---|---|

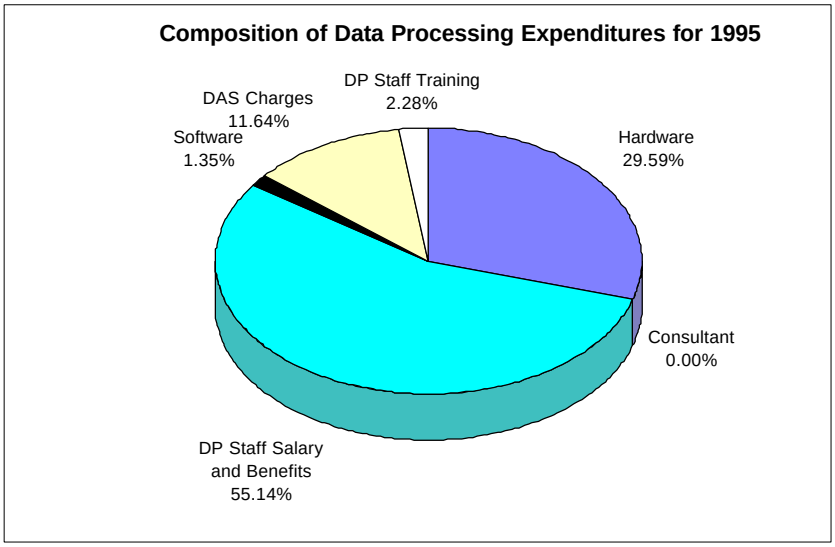
| | Expenditure | | | | |
|---|---|---|---|---|---|
| Data | Hardware | Consultant | Software | Training | Grand Total |
| 1993 | $121,819 | $0 | $8,818 | $11,994 | $142,631 |
| 1994 | $150,598 | $0 | $21,808 | $20,506 | $192,912 |
| 1995* | $299,697 | $0 | $13,629 | $23,109 | $336,435 |
| 1996 | $415,000 | $0 | $214,228 | $19,458 | $648,686 |
| Total | $987,114 | $0 | $258,483 | $75,067 | $1,320,664 |

* Library's figures include $289,399 which was privately funded.



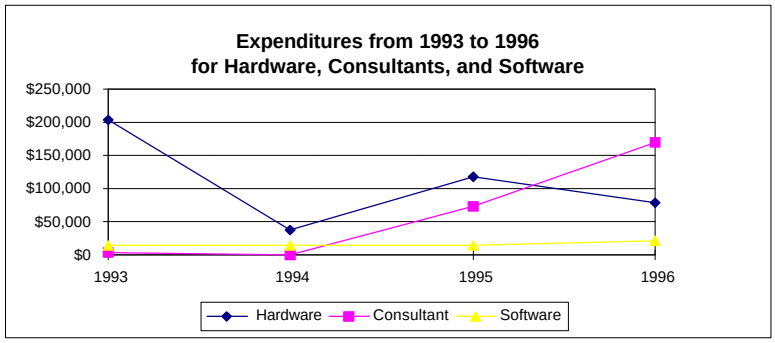

| Department | Library |
|---|---|

| | Expenditure | | | | | | |
|---|---|---|---|---|---|---|---|
| Data | Hardware | Consultant | DP Staff Salary and Benefits | Software | DAS Charges | DP Staff Training | Grand Total |
| 1995 | $299,697 | $0 | $558,430 | $13,629 | $117,941 | $23,109 | $1,012,806 |
| Percent of Total DP Costs | 29.59% | 0.00% | 55.14% | 1.35% | 11.64% | 2.28% | 100.00% |



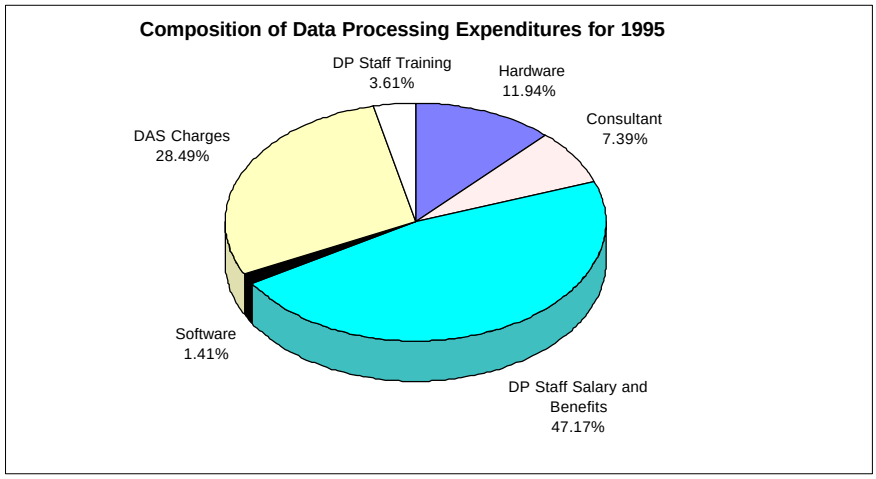
| Department | Municipal Court |
|---|---|

| | Expenditure | | | | |
|---|---|---|---|---|---|
| Data | Hardware | Consultant | Software | Training | Grand Total |
| 1993 | $203,433 | $2,700 | $14,042 | $37,340 | $257,515 |
| 1994 | $37,313 | $0 | $13,578 | $27,669 | $78,560 |
| 1995 | $117,321 | $72,580 | $13,821 | $35,482 | $239,204 |
| 1996 | $78,000 | $170,000 | $20,800 | $42,933 | $311,733 |
| Total | $436,067 | $245,280 | $62,241 | $143,424 | $887,012 |



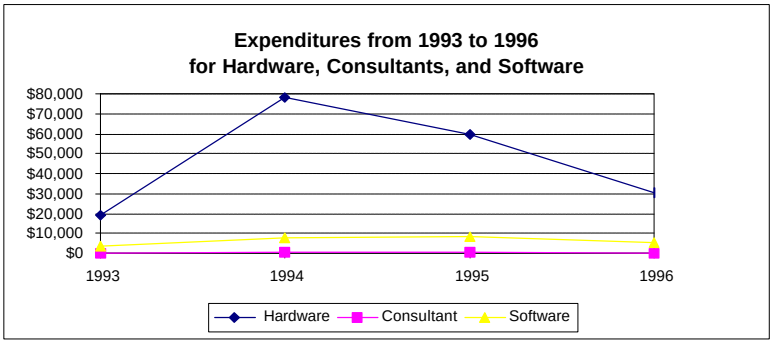

| Department | Municipal Court |
|---|---|

| | Expenditure | | | | | | |
|---|---|---|---|---|---|---|---|
| Data | Hardware | Consultant | DP Staff Salary and Benefits | Software | DAS Charges | DP Staff Training | Grand Total |
| 1995 | $117,321 | $72,580 | $463,616 | $13,821 | $279,946 | $35,482 | $982,766 |
| Percent of Total DP Costs | 11.94% | 7.39% | 47.17% | 1.41% | 28.49% | 3.61% | 100.00% |



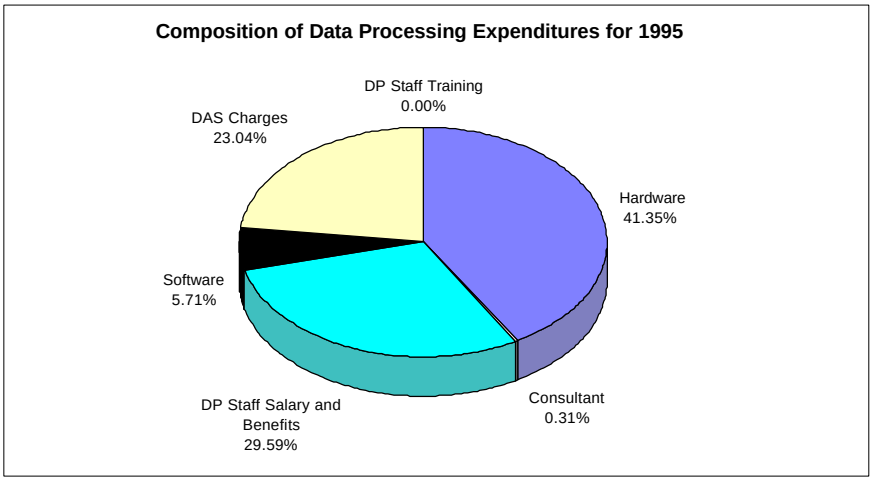
| Department | Neighborhoods |
|---|---|

| | Expenditure | | | | |
|---|---|---|---|---|---|
| Data | Hardware | Consultant | Software | Training | Grand Total |
| 1993 | $18,887 | $0 | $3,821 | $0 | $22,708 |
| 1994 | $78,076 | $455 | $7,729 | $0 | $86,260 |
| 1995 | $59,636 | $443 | $8,232 | $0 | $68,311 |
| 1996 | $30,523 | $0 | $5,402 | $0 | $35,925 |
| Total | $187,122 | $898 | $25,184 | $0 | $213,204 |



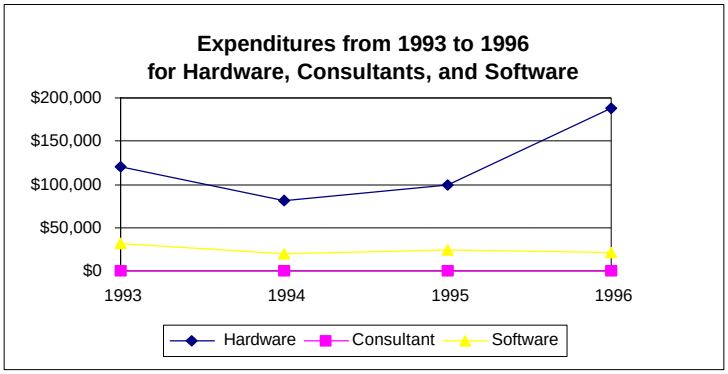

| Department | Neighborhoods |
|---|---|

| | Expenditure | | | | | | |
|---|---|---|---|---|---|---|---|
| Data | Hardware | Consultant | DP Staff Salary and Benefits | Software | DAS Charges | DP Staff Training | Grand Total |
| 1995 | $59,636 | $443 | $42,681 | $8,232 | $33,236 | $0 | $144,228 |
| Percent of Total DP Costs | 41.35% | 0.31% | 29.59% | 5.71% | 23.04% | 0.00% | 100.00% |



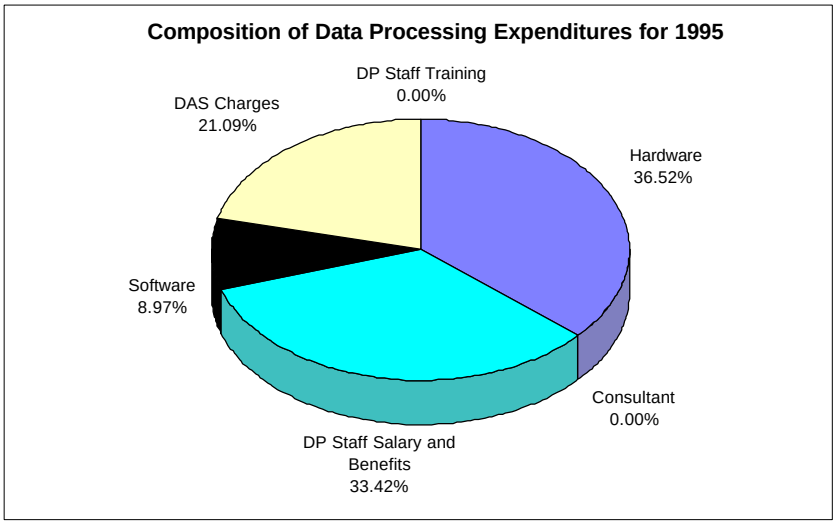
| Department | OMP |
|---|---|

| | Expenditure | | | | |
|---|---|---|---|---|---|
| Data | Hardware | Consultant | Software | Training | Grand Total |
| 1993 | $119,682 | $0 | $31,677 | $0 | $151,359 |
| 1994 | $81,504 | $0 | $19,729 | $1,196 | $102,429 |
| 1995 | $99,678 | $0 | $24,478 | $0 | $124,156 |
| 1996 | $188,222 | $0 | $21,342 | $0 | $209,564 |
| Total | $489,086 | $0 | $97,226 | $1,196 | $587,508 |



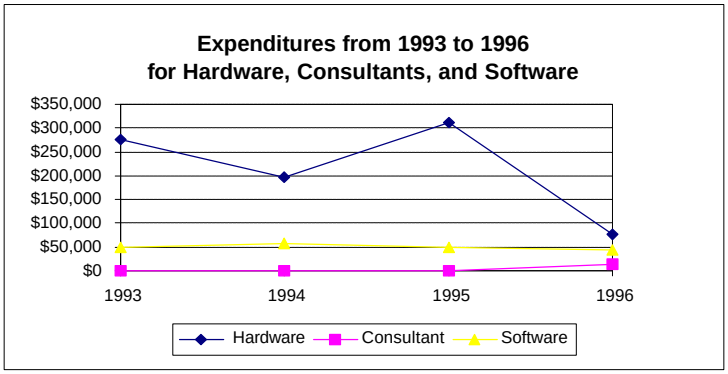

| Department | OMP |
|---|---|

| | Expenditure | | | | | | |
|---|---|---|---|---|---|---|---|
| Data | Hardware | Consultant | DP Staff Salary and Benefits | Software | DAS Charges | DP Staff Training | Grand Total |
| 1995 | $99,678 | $0 | $91,197 | $24,478 | $57,565 | $0 | $272,918 |
| Percent of Total DP Costs | 36.52% | 0.00% | 33.42% | 8.97% | 21.09% | 0.00% | 100.00% |



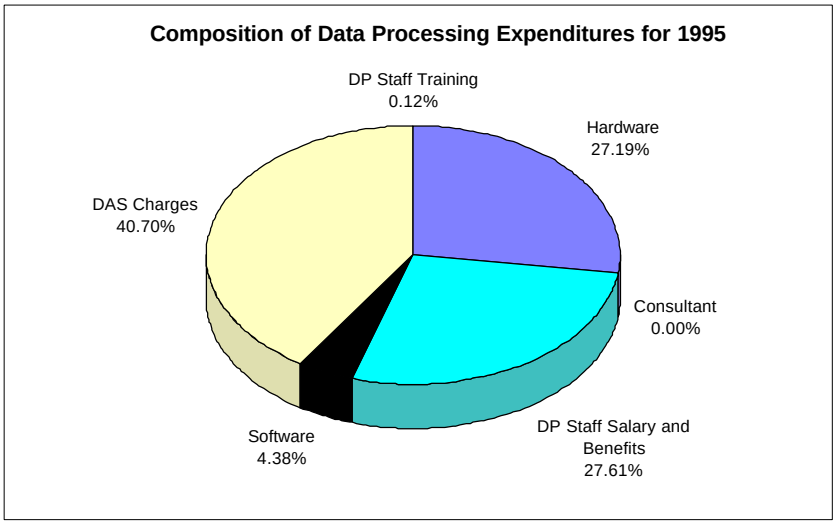
| Department | Parks |
|---|---|

| | Expenditure | | | | |
|---|---|---|---|---|---|
| Data | Hardware | Consultant | Software | Training | Grand Total |
| 1993 | $275,328 | $0 | $48,733 | $500 | $324,561 |
| 1994 | $196,292 | $0 | $57,536 | $1,402 | $255,230 |
| 1995 | $312,740 | $0 | $50,332 | $1,390 | $364,462 |
| 1996 | $77,306 | $15,000 | $43,460 | $2,345 | $138,111 |
| Total | $861,666 | $15,000 | $200,061 | $5,637 | $1,082,364 |



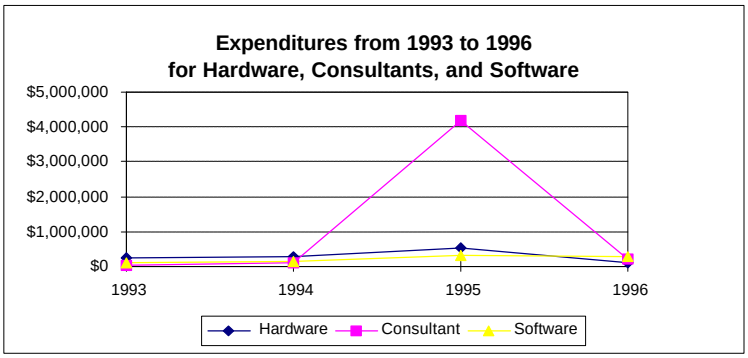

| Department | Parks |
|---|---|

| | Expenditure | | | | | | |
|---|---|---|---|---|---|---|---|
| Data | Hardware | Consultant | DP Staff Salary and Benefits | Software | DAS Charges | DP Staff Training | Grand Total |
| 1995 | $312,740 | $0 | $317,500 | $50,332 | $468,065 | $1,390 | $1,150,027 |
| Percent of Total DP Costs | 27.19% | 0.00% | 27.61% | 4.38% | 40.70% | 0.12% | 100.00% |



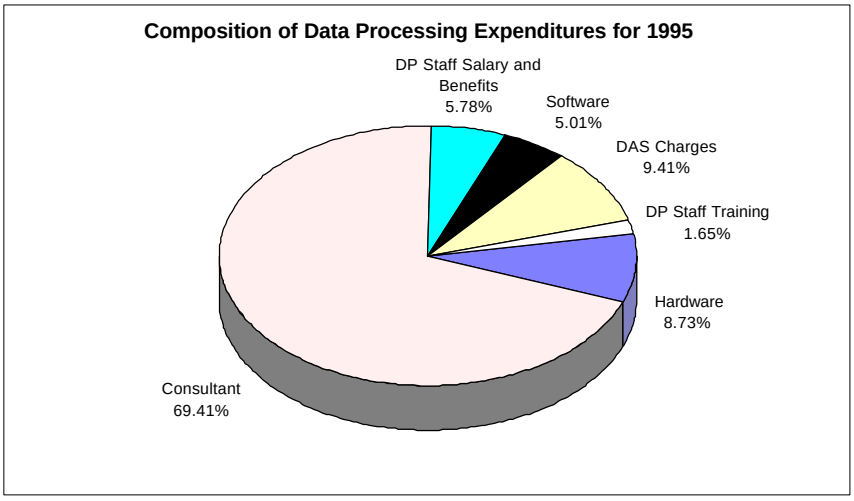
| Department | Personnel |
|---|---|

| | Expenditure | | | | |
|---|---|---|---|---|---|
| Data | Hardware | Consultant | Software | Training | Grand Total |
| 1993 | $252,762 | $35,000 | $114,522 | $20,000 | $422,284 |
| 1994 | $265,972 | $100,000 | $154,597 | $20,000 | $540,569 |
| 1995 | $528,530 | $4,200,000 | $303,396 | $100,000 | $5,131,926 |
| 1996 | $104,000 | $200,000 | $293,942 | $100,000 | $697,942 |
| Total | $1,151,264 | $4,535,000 | $866,457 | $240,000 | $6,792,721 |



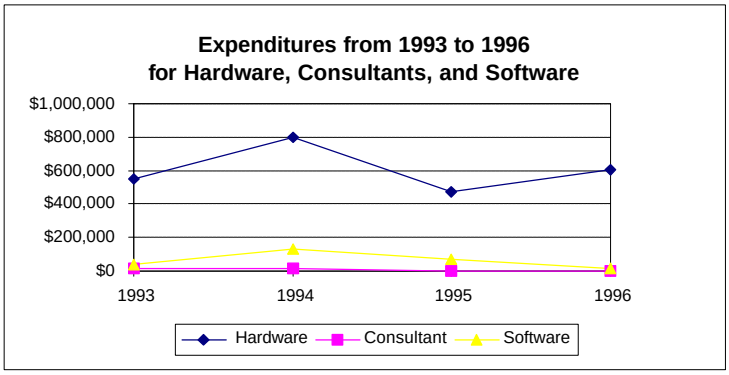

| Department | Personnel |
|---|---|

| | Expenditure | | | | | | |
|---|---|---|---|---|---|---|---|
| Data | Hardware | Consultant | DP Staff Salary and Benefits | Software | DAS Charges | DP Staff Training | Grand Total |
| 1995 | $528,530 | $4,200,000 | $350,000 | $303,396 | $569,434 | $100,000 | $6,051,360 |
| Percent of Total DP Costs | 8.73% | 69.41% | 5.78% | 5.01% | 9.41% | 1.65% | 100.00% |



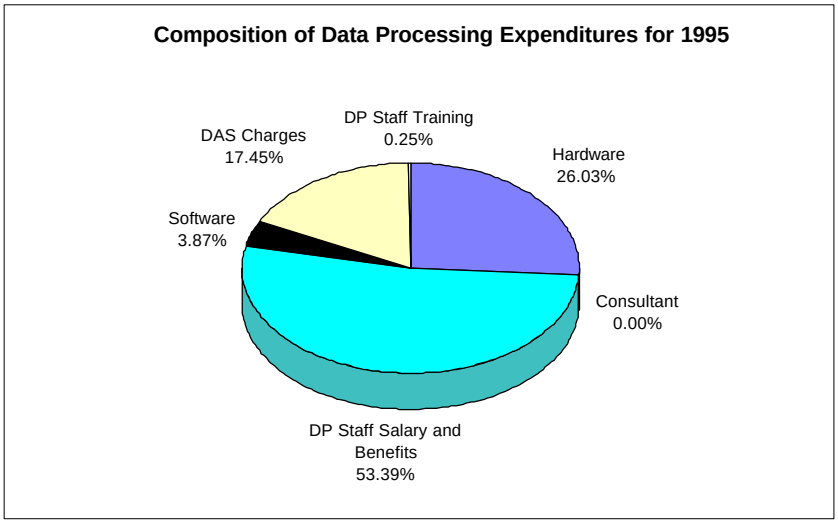
| Department | Police |
|---|---|

| | Expenditure | | | | |
|---|---|---|---|---|---|
| Data | Hardware | Consultant | Software | Training | Grand Total |
| 1993 | $552,739 | $15,000 | $40,930 | $5,590 | $614,259 |
| 1994 | $800,552 | $17,000 | $128,092 | $568 | $946,212 |
| 1995 | $472,170 | $0 | $70,276 | $4,573 | $547,019 |
| 1996 | $607,210 | $0 | $15,796 | $6,052 | $629,058 |
| Total | $2,432,671 | $32,000 | $255,094 | $16,783 | $2,736,548 |



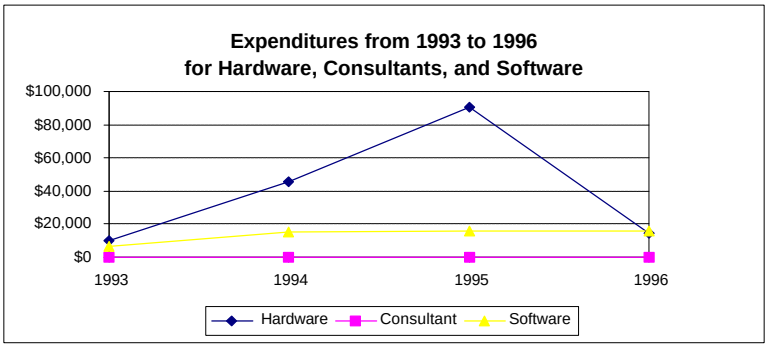

| Department | Police |
|---|---|

| | Expenditure | | | | | | |
|---|---|---|---|---|---|---|---|
| Data | Hardware | Consultant | DP Staff Salary and Benefits | Software | DAS Charges | DP Staff Training | Grand Total |
| 1995 | $472,170 | $0 | $950,376 | $70,276 | $316,560 | $4,573 | $1,813,955 |
| Percent of Total DP Costs | 26.03% | 0.00% | 52.39% | 3.87% | 17.45% | 0.25% | 100.00% |



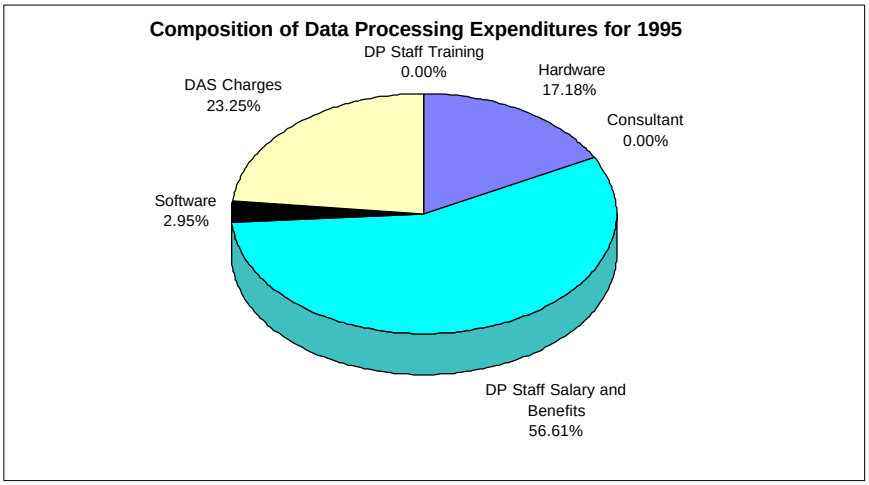
| Department | Seattle Center |
|---|---|

| | Expenditure | | | | |
|---|---|---|---|---|---|
| Data | Hardware | Consultant | Software | Training | Grand Total |
| 1993 | $10,000 | $0 | $6,371 | $0 | $16,371 |
| 1994 | $45,855 | $0 | $15,000 | $0 | $60,855 |
| 1995 | $90,727 | $0 | $15,589 | $0 | $106,316 |
| 1996 | $14,159 | $0 | $16,254 | $0 | $30,413 |
| Total | $160,741 | $0 | $53,214 | $0 | $213,955 |



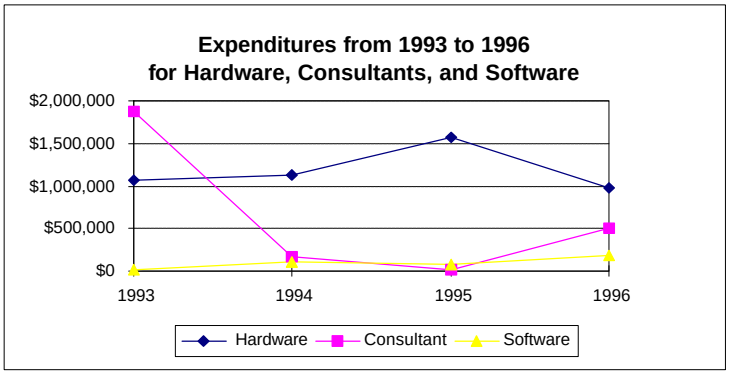

| Department | Seattle Center |
|---|---|

| | Expenditure | | | | | | |
|---|---|---|---|---|---|---|---|
| Data | Hardware | Consultant | DP Staff Salary and Benefits | Software | DAS Charges | DP Staff Training | Grand Total |
| 1995 | $90,727 | $0 | $298,892 | $15,589 | $122,769 | $0 | $527,977 |
| Percent of Total DP Costs | 17.18% | 0.00% | 56.61% | 2.95% | 23.25% | 0.00% | 100.00% |



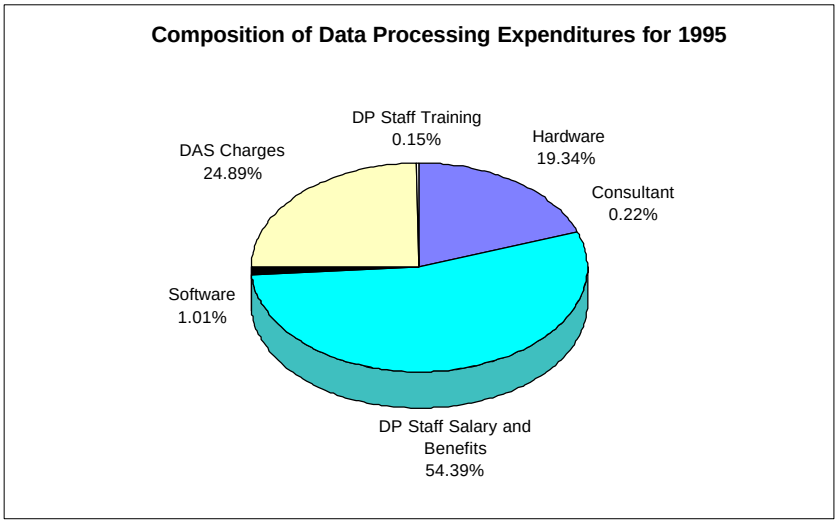
| Department | Water |
|---|---|

| | Expenditure | | | | |
|---|---|---|---|---|---|
| Data | Hardware | Consultant | Software | Training | Grand Total |
| 1993 | $1,074,687 | $1,875,531 | $21,268 | $25,360 | $2,996,846 |
| 1994 | $1,124,631 | $175,091 | $110,338 | $33,902 | $1,443,962 |
| 1995 | $1,576,856 | $18,097 | $81,996 | $12,266 | $1,689,215 |
| 1996 | $979,824 | $500,000 | $185,250 | $14,000 | $1,679,074 |
| Total | $4,755,998 | $2,568,719 | $398,852 | $85,528 | $7,809,097 |



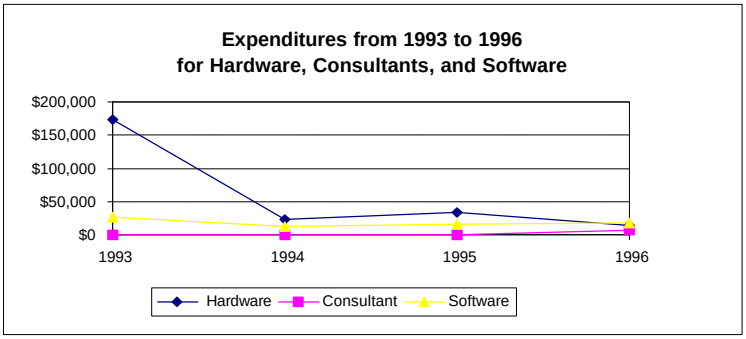

| Department | Water |
|---|---|

| | Expenditure | | | | | | |
|---|---|---|---|---|---|---|---|
| Data | Hardware | Consultant | DP Staff Salary and Benefits | Software | DAS Charges | DP Staff Training | Grand Total |
| 1995 | $1,576,856 | $18,097 | $4,434,550 | $81,996 | $2,029,608 | $12,266 | $8,153,373 |
| Percent of Total DP Costs | 19.34% | 0.22% | 54.39% | 1.01% | 24.89% | 0.15% | 100.00% |



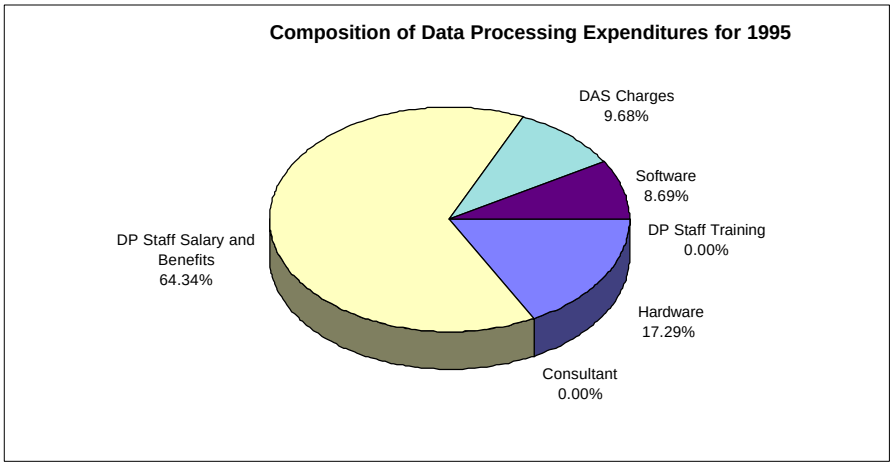
| Department | Legislative |
|---|---|

| | Expenditure | | | | |
|---|---|---|---|---|---|
| Data | Hardware | Consultant | Software | Training | Grand Total |
| 1993 | $174,000 | $0 | $27,366 | $0 | $201,366 |
| 1994 | $22,133 | $800 | $13,034 | $0 | $35,967 |
| 1995 | $32,915 | $0 | $16,535 | $0 | $49,450 |
| 1996 | $14,985 | $7,000 | $17,500 | $0 | $39,485 |
| Total | $244,033 | $7,800 | $74,435 | $0 | $326,268 |

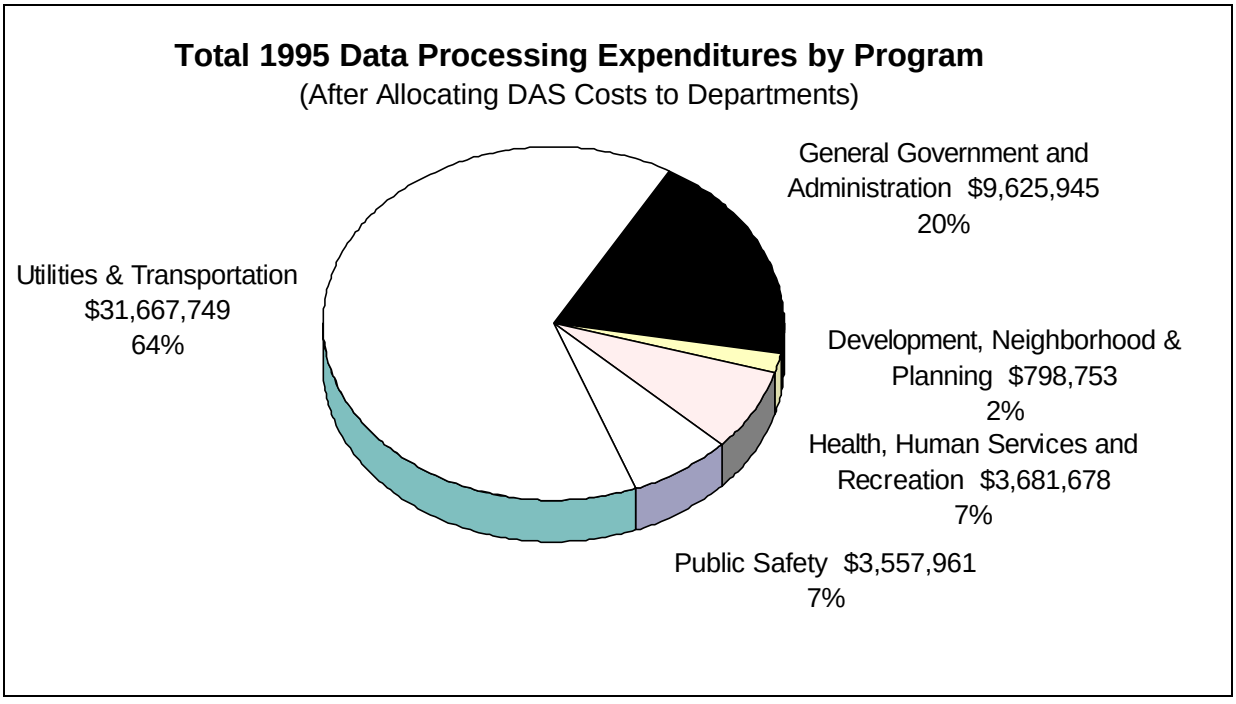



| Department | Legislative |
|---|---|

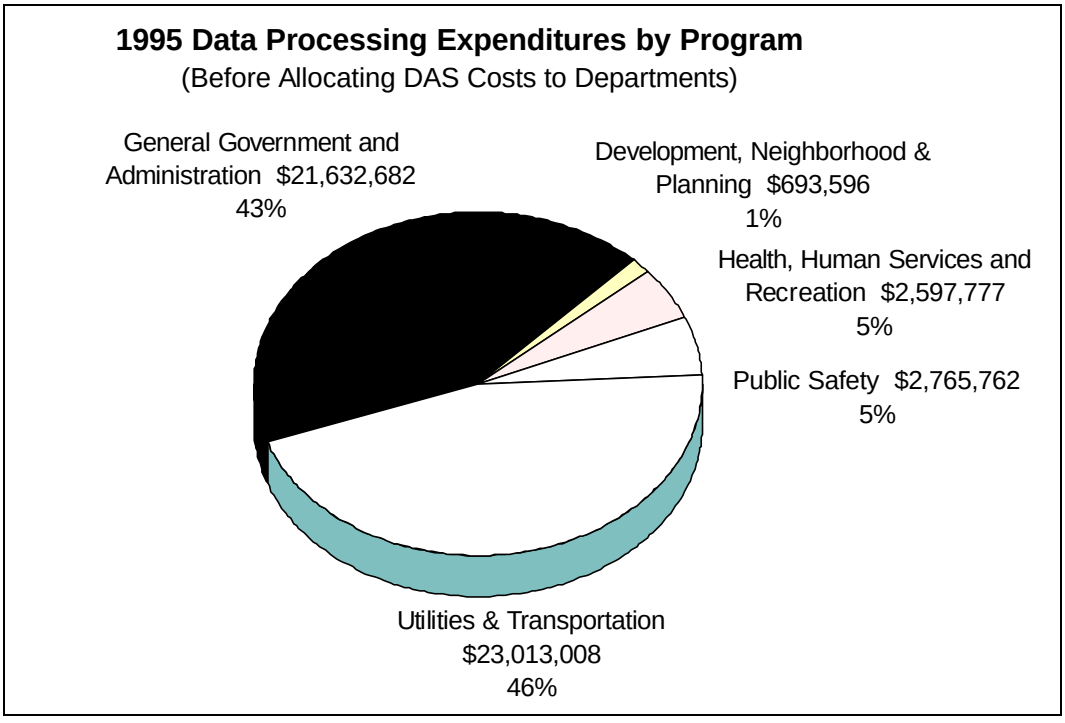
| | Expenditure | | | | | | |
|---|---|---|---|---|---|---|---|
| Data | Hardware | Consultant | DP Staff Salary and Benefits | DAS Charges | Software | DP Staff Training | Grand Total |
| 1995 | $32,915 | $0 | $122,492 | $18,428 | $16,535 | $0 | $190,370 |
| Percentage of Total CP Costs | 17.29% | 0.00% | 64.34% | 9.68% | 8.69% | 0.00% | 100.00% |



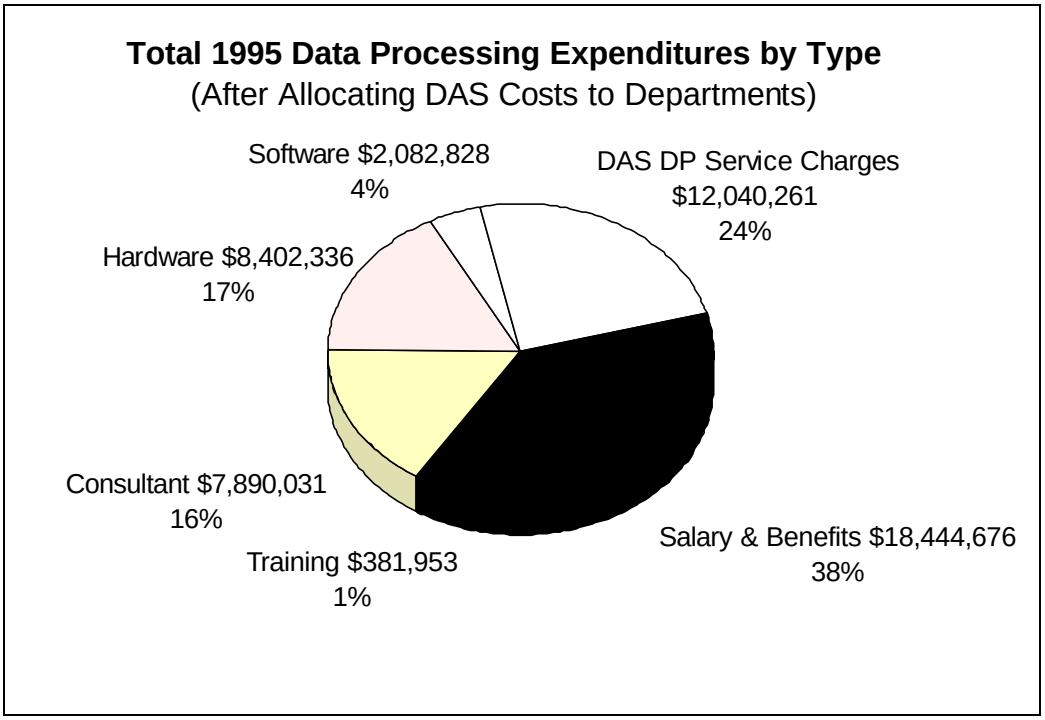
| Chart A-1. 1995 Expenditures by Program After Allocating DAS Costs | | |
|---|---|---|
| Department2 | Department | Total |
| General Government and Administration $9,625,945 | Finance | $2,903,443 |
| | Law | $398,224 |
| | OMP | $272,918 |
| | Personnel | $6,051,360 |
| General Government and Administration $9,625,945 Sum | | $9,625,945 |
| Development, Neighborhood & Planning $798,753 | DCLU | $654,525 |
| | Neighborhoods | $144,228 |
| Development, Neighborhood & Planning $798,753 Sum | | $798,753 |
| Health, Human Services and Recreation $3,681,678 | DHHS | $990,868 |
| | Library | $1,012,806 |
| | Parks | $1,150,027 |
| | Seattle Center | $527,977 |
| Health, Human Services and Recreation $3,681,678 Sum | | $3,681,678 |
| Public Safety $3,557,961 | Fire | $761,240 |
| | Municipal Court | $982,766 |
| | Police | $1,813,955 |
| Public Safety $3,557,961 Sum | | $3,557,961 |
| Utilities & Transportation $31,667,749 | City Light | $17,474,473 |
| | Engineering | $6,039,903 |
| | Water | $8,153,373 |
| Utilities & Transportation $31,667,749 Sum | | $31,667,749 |
| **Grand Total** | | $49,332,085 |



| Chart B-1. 1995 Expenditures by Program Before Allocating DAS Costs | | |
|---|---|---|
| Department2 | Department | Total |
| General Government and Administration $21,632,682 | DAS | $13,411,000 |
| | Finance | $2,174,973 |
| | Law | $349,430 |
| | OMP | $215,353 |
| | Personnel | $5,481,926 |
| General Government and Administration $21,632,682 Sum | | $21,632,682 |
| Development, Neighborhood & Planning $693,596 | DCLU | $582,604 |
| | Neighborhoods | $110,992 |
| Development, Neighborhood & Planning $693,596 Sum | | $693,596 |
| Health, Human Services and Recreation $2,597,777 | DHHS | $615,742 |
| | Library | $894,865 |
| | Parks | $681,962 |
| | Seattle Center | $405,208 |
| Health, Human Services and Recreation $2,597,777 Sum | | $2,597,777 |
| Public Safety $2,765,762 | Fire | $565,547 |
| | Municipal Court | $702,820 |
| | Police | $1,497,395 |
| Public Safety $2,765,762 Sum | | $2,765,762 |
| Utilities & Transportation $23,013,008 | City Light | $12,297,876 |
| | Engineering | $4,591,367 |
| | Water | $6,123,765 |
| Utilities & Transportation $23,013,008 Sum | | $23,013,008 |
| Grand Total | | $50,702,824 |



| Chart A-2. Expenditures by Type After Allocating DAS Charges | | | | | | |
|---|---|---|---|---|---|---|
| | Data | | | | | |
| Department | Training $381,953 | Consultant $7,890,031 | Hardware $8,402,336 | Software $2,082,828 | DAS DP Service Charges $12,040,261 | Salary & Benefits $18,444,676 |
| City Light | $82,270 | $2,964,899 | $3,246,086 | $1,112,305 | $5,176,597 | $4,892,316 |
| DCLU | $1,363 | $0 | $217,243 | $15,758 | $71,921 | $348,240 |
| DHHS | $19,169 | $75,000 | $105,958 | $53,679 | $375,126 | $361,936 |
| Engineering | $45,160 | $482,553 | $942,441 | $176,434 | $1,448,536 | $2,944,779 |
| Finance | $47,403 | $56,459 | $174,000 | $98,111 | $728,470 | $1,799,000 |
| Fire | $6,903 | $110,000 | $12,302 | $27,432 | $195,693 | $408,910 |
| Law | $2,865 | $0 | $146,951 | $17,360 | $48,794 | $182,254 |
| Library | $23,109 | $0 | $299,697 | $13,629 | $117,941 | $558,430 |
| Municipal Court | $35,482 | $72,580 | $117,321 | $13,821 | $279,946 | $463,616 |
| Neighborhoods | $0 | $443 | $59,636 | $8,232 | $33,236 | $42,681 |
| OMP | $0 | $0 | $99,678 | $24,478 | $57,565 | $91,197 |
| Parks | $1,390 | $0 | $312,740 | $50,332 | $468,065 | $317,500 |
| Personnel | $100,000 | $4,200,000 | $528,530 | $303,396 | $569,434 | $350,000 |
| Police | $4,573 | $0 | $472,170 | $70,276 | $316,560 | $950,376 |
| Seattle Center | $0 | $0 | $90,727 | $15,589 | $122,769 | $298,892 |
| Water | $12,266 | $18,097 | $1,576,856 | $81,996 | $2,029,608 | $4,434,550 |
| **Grand Total** | $ 381,953 | $7,980,031 | $8,402,336 | $2,082,828 | $12,040,261 | $18,444,676 |



| Chart B-2. Expenditures by Type Before Allocating DAS Costs | |
|---|---|
| Data | Total |
| Training $545,953 | $545,953 |
| Consultants $10,163,031 | $10,163,031 |
| Hardware $11,974,336 | $11,974,336 |
| Software $3,774,828 | $3,774,828 |
| DP Staff Salary and Benefits $24,244,676 | $24,244,676 |

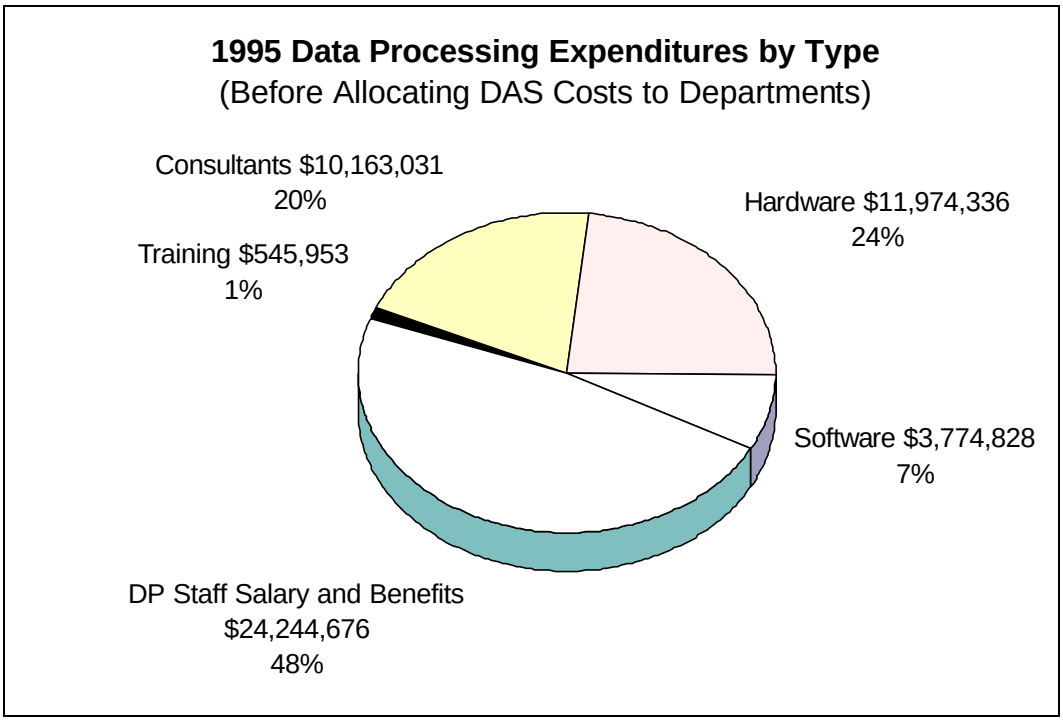


**Chart A-3: Adopted 1995 Budget (Includes CIP) and Percent Spent on Technology After Allocating DAS Costs**

| | | Data | | DP Costs as |
|---|---|---|---|---|
| Department2 | Department | Total Dept. DP Cost For 1995 | Adopted Budget 1995 | Percentage of 1995 Budget |
| General Government and Administration | Finance | $2,903,443 | $13,253,357 | 21.91% |
| | Law | $398,224 | $10,744,039 | 3.71% |
| | OMP | $272,918 | $5,591,934 | 4.88% |
| | Personnel | $6,051,360 | $10,569,824 | 57.25% |
| General Government and Administration Sum | | $9,625,945 | $40,159,154 | 23.97% |
| Utilities and Transportation | City Light | $17,474,473 | $526,327,382 | 3.32% |
| | Engineering | $6,039,903 | $316,169,083 | 1.91% |
| | Water | $8,153,373 | $121,559,088 | 6.71% |
| Utilities and Transportation Sum | | $31,667,749 | $964,055,553 | 3.28% |
| Development, Neighborhood & Planning | DCLU | $654,525 | $23,234,912 | 2.82% |
| | Neighborhoods | $144,228 | $4,478,818 | 3.22% |
| Development, Neighborhood & Planning Sum | | $798,753 | $27,713,730 | 2.88% |
| Health, Human Services & Recreation | DHHS | $990,868 | $66,126,482 | 1.50% |
| | Library | $1,012,806 | $22,932,393 | 4.42% |
| | Parks | $1,150,027 | $61,889,894 | 1.86% |
| | Seattle Center | $527,977 | $18,612,751 | 2.84% |
| Health, Human Services & Recreation Sum | | $3,681,678 | $169,561,520 | 2.17% |
| Public Safety | Fire | $761,240 | $73,652,002 | 1.03% |
| | Municipal Court | $982,766 | $15,239,124 | 6.45% |
| | Police | $1,813,955 | $114,458,237 | 1.58% |
| Public Safety Sum | | $3,557,961 | $203,349,363 | 1.75% |
| **Grand Total** | | $49,332,085 | $1,404,839,320 | 3.51% |

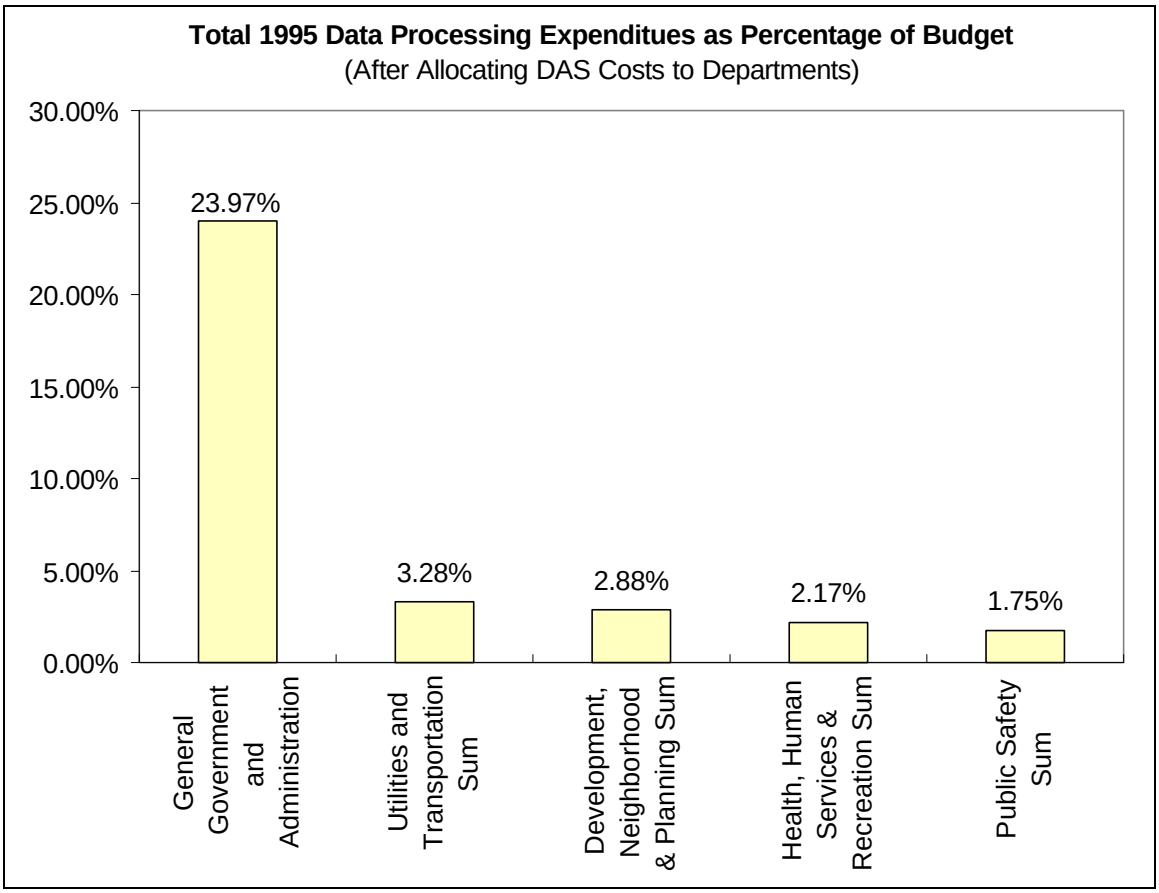
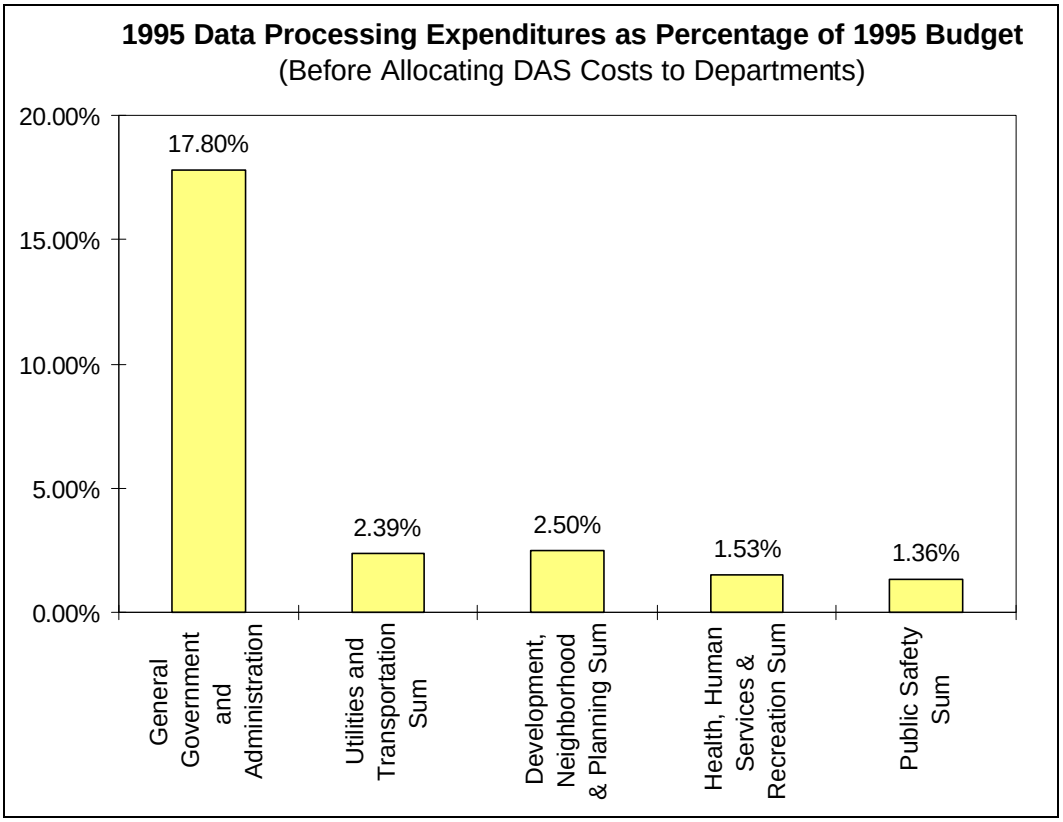
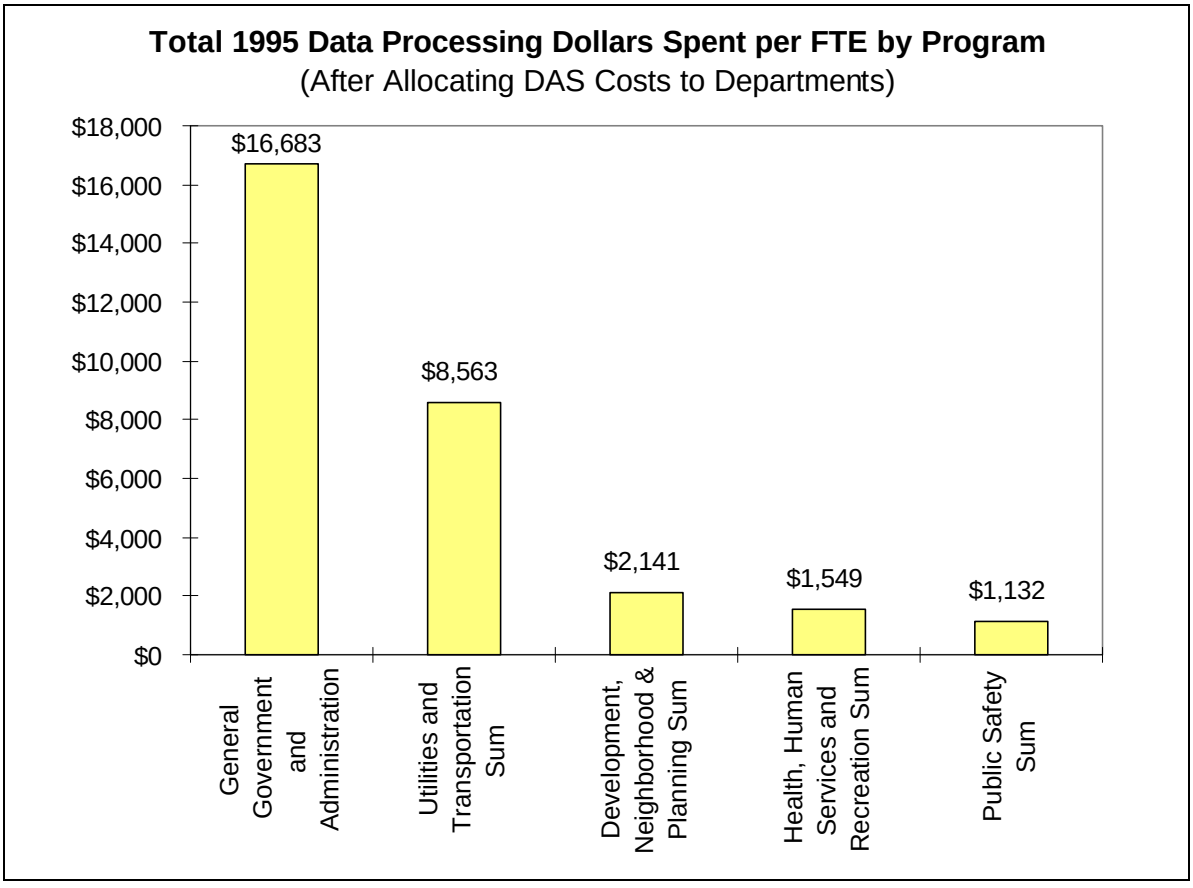


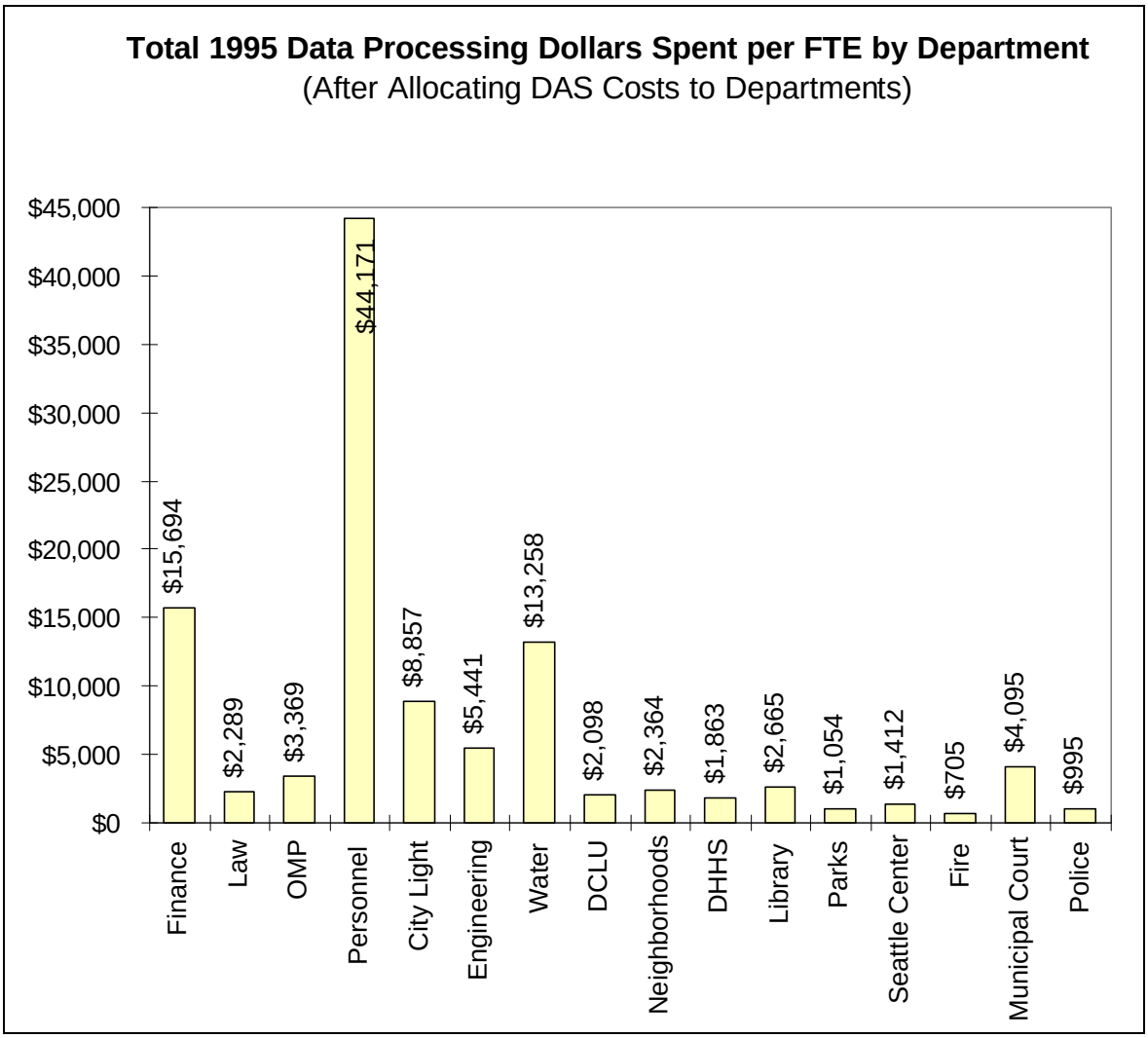
**Chart B-3: Adopted 1995 Budget (Includes CIP) and Percent Spent on Technology Before Allocating DAS Costs**

| | | Data | | |
|---|---|---|---|---|
| Department2 | Department | Dept. DP Cost before DAS DP Charges | Adopted Budget 1995 | Percentage of Budget |
| General Government and Administration | DAS | $13,411,000 | $81,395,489 | 16.48% |
| | Finance | $2,174,973 | $13,253,357 | 16.41% |
| | Law | $349,430 | $10,744,039 | 3.25% |
| | OMP | $215,353 | $5,591,934 | 3.85% |
| | Personnel | $5,481,926 | $10,569,824 | 51.86% |
| General Government and Administration Sum | | $21,632,682 | $121,554,643 | 17.80% |
| Utilities and Transportation | City Light | $12,297,876 | $526,327,382 | 2.34% |
| | Engineering | $4,591,367 | $316,169,083 | 1.45% |
| | Water | $6,123,765 | $121,559,088 | 5.04% |
| Utilities and Transportation Sum | | $23,013,008 | $964,055,553 | 2.39% |
| Development, Neighborhood & Planning | DCLU | $582,604 | $23,234,912 | 2.51% |
| | Neighborhoods | $110,992 | $4,478,818 | 2.48% |
| Development, Neighborhood & Planning Sum | | $693,596 | $27,713,730 | 2.50% |
| Health, Human Services & Recreation | DHHS | $615,742 | $66,126,482 | 0.93% |
| | Library | $894,865 | $22,932,393 | 3.90% |
| | Parks | $681,962 | $61,889,894 | 1.10% |
| | Seattle Center | $405,208 | $18,612,751 | 2.18% |
| Health, Human Services & Recreation Sum | | $2,597,777 | $169,561,520 | 1.53% |
| Public Safety | Fire | $565,547 | $73,652,002 | 0.77% |
| | Municipal Court | $702,820 | $15,239,124 | 4.61% |
| | Police | $1,497,395 | $114,458,237 | 1.31% |
| Public Safety Sum | | $2,765,762 | $203,349,363 | 1.36% |
| Grand Total | | $50,702,824 | $1,486,234,809 | 3.41% |

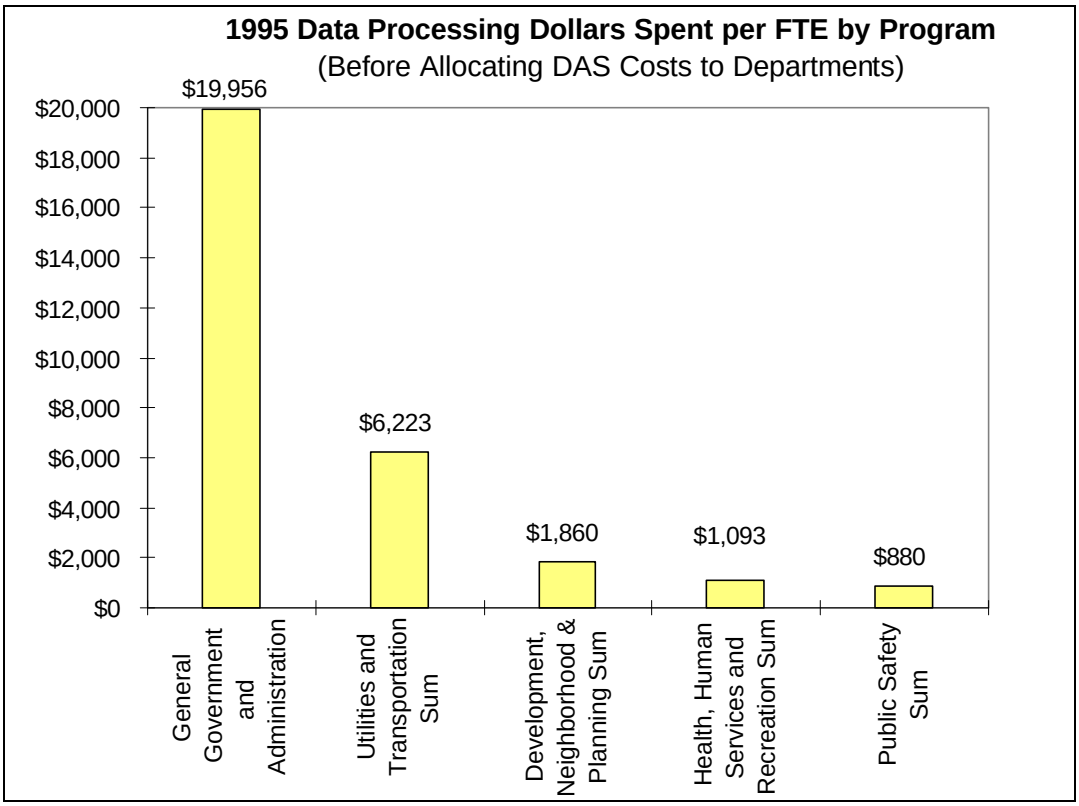


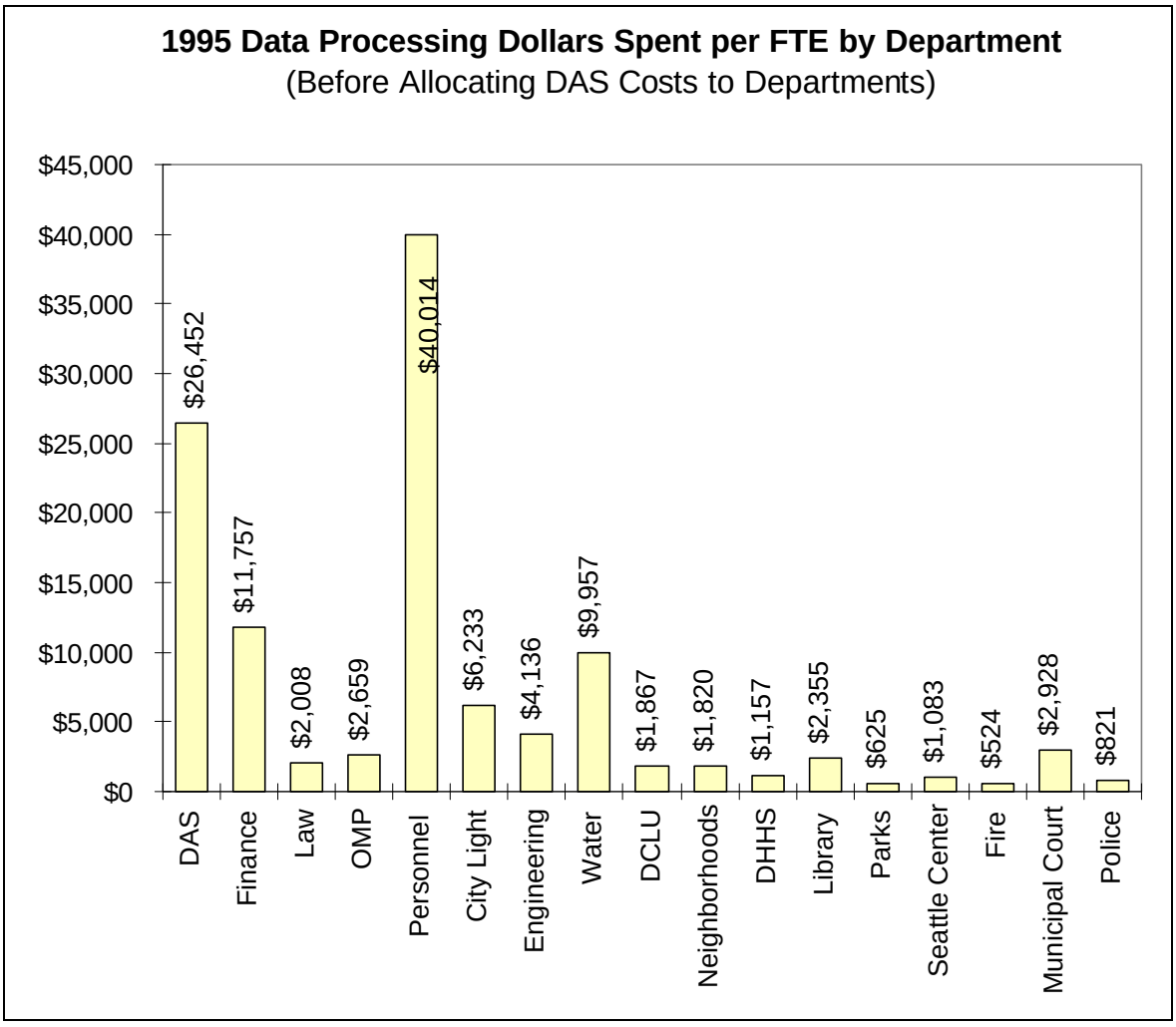
| Chart A-4a & A-4b: 1995 Data Processing Dollars Spent Per FTE After Allocating DAS Costs | | | | |
|---|---|---|---|---|
| | | Data | | |
| Department2 | Department | Total Dept. DP Cost For 1995 | Sum of FTE Personnel | $ Spent per F.T.E. |
| General Government and Administration | Finance | $2,903,443 | 185 | $15,694 |
| | Law | $398,224 | 174 | $2,289 |
| | OMP | $272,918 | 81 | $3,369 |
| | Personnel | $6,051,360 | 137 | $44,171 |
| General Government and Administration Sum | | $9,625,945 | 577 | $16,683 |
| Utilities and Transportation | City Light | $17,474,473 | 1973 | $8,857 |
| | Engineering | $6,039,903 | 1110 | $5,441 |
| | Water | $8,153,373 | 615 | $13,258 |
| Utilities and Transportation Sum | | $31,667,749 | 3698 | $8,563 |
| Development, Neighborhood & Planning | DCLU | $654,525 | 312 | $2,098 |
| | Neighborhoods | $144,228 | 61 | $2,364 |
| Development, Neighborhood & Planning Sum | | $798,753 | 373 | $2,141 |
| Health, Human Services and Recreation | DHHS | $990,868 | 532 | $1,863 |
| | Library | $1,012,806 | 380 | $2,665 |
| | Parks | $1,150,027 | 1091 | $1,054 |
| | Seattle Center | $527,977 | 374 | $1,412 |
| Health, Human Services and Recreation Sum | | $3,681,678 | 2377 | $1,549 |
| Public Safety | Fire | $761,240 | 1080 | $705 |
| | Municipal Court | $982,766 | 240 | $4,095 |
| | Police | $1,813,955 | 1823 | $995 |
| Public Safety Sum | | $3,557,961 | 3143 | $1,132 |
| **Grand Total** | | $49,332,085 | 10168 | $4,852 |



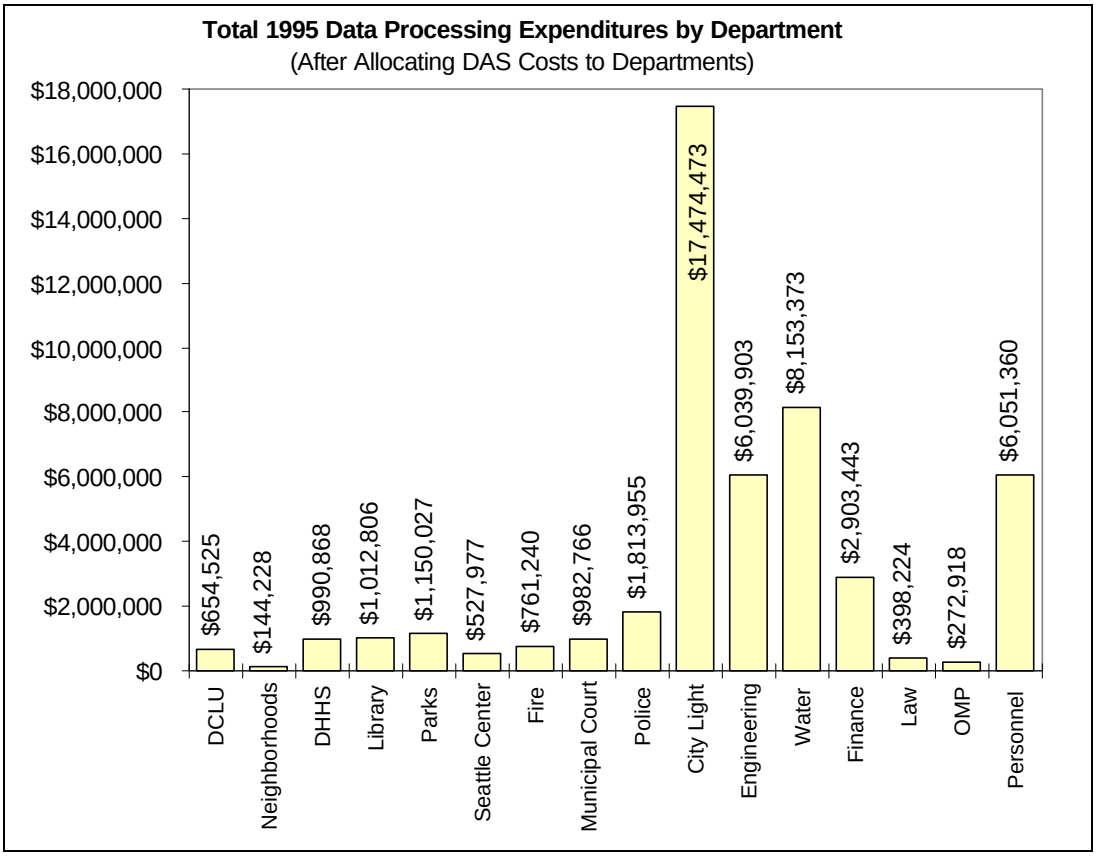

Total 1995 Data Processing Dollars Spent per FTE by Department
(After Allocating DAS Costs to Departments)
$45,000
$40,000
$35,000
$30,000
$25,000
$20,000
$15,000
$10,000
$5,000
$0
$15,694
$2,289
$3,369
$44,171
$8,857
$5,441
$13,258
$2,098
$2,364
$1,863
$2,665
$1,054
$1,412
$705
$4,095
$995
Finance
Law
OMP
Personnel
City Light
Engineering
Water
DCLU
Neighborhoods
DHHS
Library
Parks
Seattle Center
Fire
Municipal Court
Police

| Chart B-4a & B-4b: 1995 Data Processing Dollars Spent per FTE Before Allocating DAS Costs | | | | |
|---|---|---|---|---|
| | | Data | | |
| Department2 | Department | Dept DP Cost before allocating Interfund DP Charges | Sum of FTE Personnel | $ Spent per F.T.E. |
| General Government and Administration | DAS | $13,411,000 | 507 | $26,452 |
| | Finance | $2,174,973 | 185 | $11,757 |
| | Law | $349,430 | 174 | $2,008 |
| | OMP | $215,353 | 81 | $2,659 |
| | Personnel | $5,481,926 | 137 | $40,014 |
| General Government and Administration Sum | | $21,632,682 | 1084 | $19,956 |
| Utilities and Transportation | City Light | $12,297,876 | 1973 | $6,233 |
| | Engineering | $4,591,367 | 1110 | $4,136 |
| | Water | $6,123,765 | 615 | $9,957 |
| Utilities and Transportation Sum | | $23,013,008 | 3698 | $6,223 |
| Development, Neighborhood & Planning | DCLU | $582,604 | 312 | $1,867 |
| | Neighborhoods | $110,992 | 61 | $1,820 |
| Development, Neighborhood & Planning Sum | | $693,596 | 373 | $1,860 |
| Health, Human Services and Recreation | DHHS | $615,742 | 532 | $1,157 |
| | Library | $894,865 | 380 | $2,355 |
| | Parks | $681,962 | 1091 | $625 |
| | Seattle Center | $405,208 | 374 | $1,083 |
| Health, Human Services and Recreation Sum | | $2,597,777 | 2377 | $1,093 |
| Public Safety | Fire | $565,547 | 1080 | $524 |
| | Municipal Court | $702,820 | 240 | $2,928 |
| | Police | $1,497,395 | 1823 | $821 |
| Public Safety Sum | | $2,765,762 | 3143 | $880 |
| Grand Total | | $50,702,824 | 10675 | $4,750 |

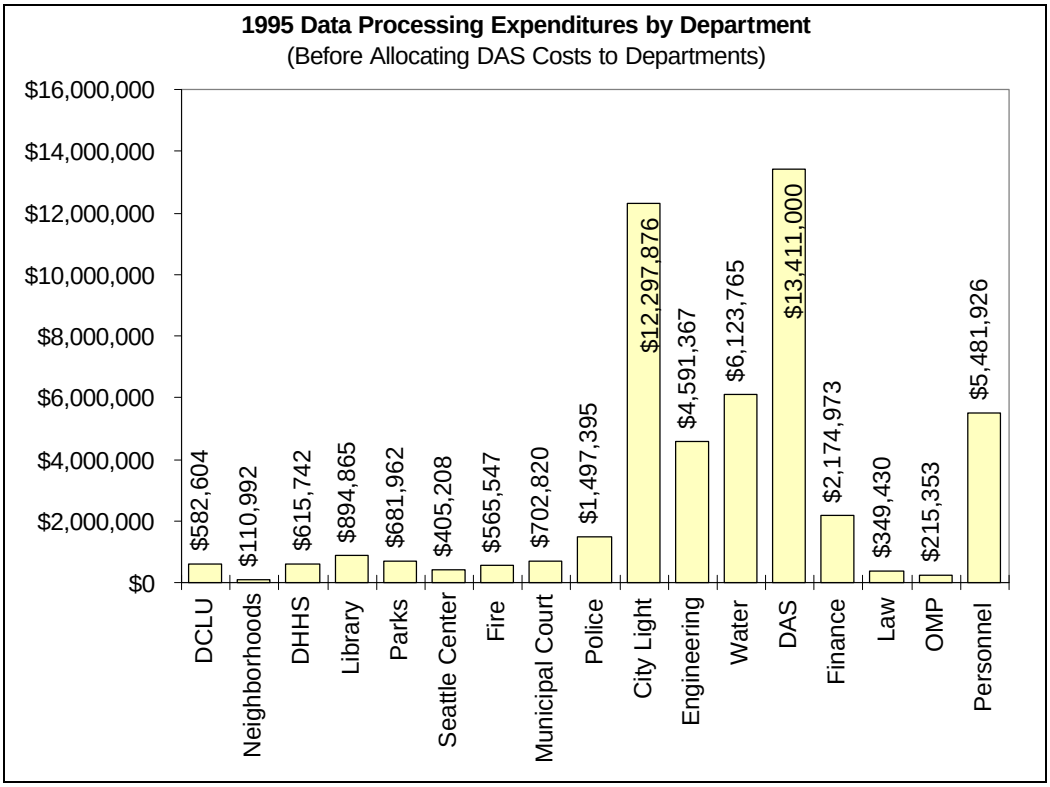



1995 Data Processing Dollars Spent per FTE by Department
(Before Allocating DAS Costs to Departments)
$45,000
$40,000
$35,000
$30,000
$25,000
$20,000
$15,000
$10,000
$5,000
$0
$26,452
$11,757
$2,008
$2,659
$40,014
$6,233
$4,136
$9,957
$1,867
$1,820
$1,157
$2,355
$625
$1,083
$524
$2,928
$821
DAS
Finance
Law
OMP
Personnel
City Light
Engineering
Water
DCLU
Neighborhoods
DHHS
Library
Parks
Seattle Center
Fire
Municipal Court
Police

| Chart A-5: 1995 Expenditures After Allocating DAS Costs | | |
|---|---|---|
| Department2 | Department | Total |
| Development, Neighborhood & Planning | DCLU | $654,525 |
| | Neighborhoods | $144,228 |
| Development, Neighborhood & Planning Sum | | $798,753 |
| Health, Human Services and Recreation | DHHS | $990,868 |
| | Library | $1,012,806 |
| | Parks | $1,150,027 |
| | Seattle Center | $527,977 |
| Health, Human Services and Recreation Sum | | $3,681,678 |
| Public Safety | Fire | $761,240 |
| | Municipal Court | $982,766 |
| | Police | $1,813,955 |
| Public Safety Sum | | $3,557,961 |
| Utilities & Transportation | City Light | $17,474,473 |
| | Engineering | $6,039,903 |
| | Water | $8,153,373 |
| Utilities & Transportation Sum | | $31,667,749 |
| General Government and Administration | Finance | $2,903,443 |
| | Law | $398,224 |
| | OMP | $272,918 |
| | Personnel | $6,051,360 |
| General Government and Administration Sum | | $9,625,945 |
| **Grand Total** | | $49,332,085 |



| **Chart B-5. 1995 Expenditures Before Allocating DAS Costs** | | |
|---|---|---|
| Department2 | Department | Total |
| Development, Neighborhood & Planning | DCLU | $582,604 |
| | Neighborhoods | $110,992 |
| Development, Neighborhood & Planning Sum | | $693,596 |
| Health, Human Services and Recreation | DHHS | $615,742 |
| | Library | $894,865 |
| | Parks | $681,962 |
| | Seattle Center | $405,208 |
| Health, Human Services and Recreation Sum | | $2,597,777 |
| Public Safety | Fire | $565,547 |
| | Municipal Court | $702,820 |
| | Police | $1,497,395 |
| Public Safety Sum | | $2,765,762 |
| Utilities & Transportation | City Light | $12,297,876 |
| | Engineering | $4,591,367 |
| | Water | $6,123,765 |
| Utilities & Transportation Sum | | $23,013,008 |
| General Government and Administration | DAS | $13,411,000 |
| | Finance | $2,174,973 |
| | Law | $349,430 |
| | Legislative | $0 |
| | OMP | $215,353 |
| | Personnel | $5,481,926 |
| General Government and Administration Sum | | $21,632,682 |
| Grand Total | | $50,702,824 |



## Table 3

**City of Seattle**
**1995 Data Processing (DP) Expenditures**
**Excluding DAS DP Service Charges**

| Department | Hardware | | Software | | DP Staff Training | | Consultant | | DP Staff Costs for Salary and Benefits | | Total Cost Excluding DAS DP Service Charges | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total Cost & % of Dept. Total DP Cost | | Total Cost & % of Dept. Total DP Cost | | Total Cost & % of Dept. Total DP Cost | | Total Cost & % of Dept. Total DP Cost | | Total Cost & % of Dept. Total DP Cost | | Total Cost & % of Dept. Total DP Cost | |
| City Light | $3,246,086 | 26.4% | $1,112,305 | 9.0% | $82,270 | 0.7% | $2,964,899 | 24.1% | $4,892,316 | 39.8% | $12,297,876 | 100.0% |
| DAS [1] | $3,572,000 | 26.6% | $1,692,000 | 12.6% | $164,000 | 1.2% | $2,183,000 | 16.3% | $5,800,000 | 43.2% | $13,411,000 | 100.0% |
| DCLU | $217,243 | 37.3% | $15,758 | 2.7% | $1,363 | 0.2% | $0 | 0.0% | $348,240 | 59.8% | $582,604 | 100.0% |
| DHHS | $105,958 | 17.2% | $53,679 | 8.7% | $19,169 | 3.1% | $75,000 | 12.2% | $361,936 | 58.8% | $615,742 | 100.0% |
| Engineering | $942,441 | 20.5% | $176,434 | 3.8% | $45,160 | 1.0% | $482,553 | 10.5% | $2,944,779 | 64.1% | $4,591,367 | 100.0% |
| Finance [2] | $174,000 | 8.0% | $98,111 | 4.5% | $47,403 | 2.2% | $56,459 | 2.6% | $1,799,000 | 82.7% | $2,174,973 | 100.0% |
| Fire | $12,302 | 2.2% | $27,432 | 4.9% | $6,903 | 1.2% | $110,000 | 19.5% | $408,910 | 72.3% | $565,547 | 100.0% |
| Law | $146,951 | 42.1% | $17,360 | 5.0% | $2,865 | 0.8% | $0 | 0.0% | $182,254 | 52.2% | $349,430 | 100.0% |
| Library [3] | $299,697 | 33.5% | $13,629 | 1.5% | $23,109 | 2.6% | $0 | 0.0% | $558,430 | 62.4% | $894,865 | 100.0% |
| Municipal Court | $117,321 | 16.7% | $13,821 | 2.0% | $35,482 | 5.0% | $72,580 | 10.3% | $463,616 | 66.0% | $702,820 | 100.0% |
| Neighborhoods | $59,636 | 53.7% | $8,232 | 7.4% | $0 | 0.0% | $443 | 0.4% | $42,681 | 38.5% | $110,992 | 100.0% |
| OMP | $99,678 | 46.3% | $24,478 | 11.4% | $0 | 0.0% | $0 | 0.0% | $91,197 | 42.3% | $215,353 | 100.0% |
| Parks | $312,740 | 45.9% | $50,332 | 7.4% | $1,390 | 0.2% | $0 | 0.0% | $317,500 | 46.6% | $681,962 | 100.0% |
| Personnel [4] | $528,530 | 9.6% | $303,396 | 5.5% | $100,000 | 1.8% | $4,200,000 | 76.6% | $350,000 | 6.4% | $5,481,926 | 100.0% |
| Police | $472,170 | 31.5% | $70,276 | 4.7% | $4,573 | 0.3% | $0 | 0.0% | $950,376 | 63.5% | $1,497,395 | 100.0% |
| Seattle Center | $90,727 | 22.4% | $15,589 | 3.8% | $0 | 0.0% | $0 | 0.0% | $298,892 | 73.8% | $405,208 | 100.0% |
| Water | $1,576,856 | 25.7% | $81,996 | 1.3% | $12,266 | 0.2% | $18,097 | 0.3% | $4,434,550 | 72.4% | $6,123,765 | 100.0% |
| TOTAL | **$11,974,336** | **23.6%** | **$3,774,828** | **7.4%** | **$545,953** | **1.1%** | **$10,163,031** | **20.0%** | **$24,244,676** | **47.8%** | **$50,702,824** | **100.0%** |

1. DAS provides city-wide DP services and charges the departmens for its cost. See table below for DAS DP Charges to the 16 departments in our study.
2. Finance Deprtment cost includes maintenance cost of the city-wide SFMS system.
3. Portion of the Library DP cost are funded privately.
4. Personnel Department cost includes development and maintenance cost of the city-wide HRIS system.

N/A - Not Applicable

## Table 4

**City of Seattle**
**1995 Data Processing (DP) Expenditures**
**Including DAS DP Service Charges**

| Department | Hardware | | Software | | DP Staff Training | | Consultant | | DP Staff Costs for Salary and Benefits | | DAS DP Service Charges [1] | | Total DP Cost | | DP Cost as a % of 1995 Budget |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total Cost & % of Dept. Total DP Cost | | Total Cost & % of Dept. Total DP Cost | | Total Cost & % of Dept. Total DP Cost | | Total Cost & % of Dept. Total DP Cost | | Total Cost & % of Dept. Total DP Cost | | Total Cost & % of Dept. Total Cost | | Total Cost & % of Dept. Total DP Cost | | |
| City Light | $3,246,086 | 18.6% | $1,112,305 | 6.4% | $82,270 | 0.5% | $2,964,899 | 17.0% | $4,892,316 | 28.0% | $5,176,597 | 29.6% | $17,474,473 | 100.0% | 3.3% |
| DCLU | $217,243 | 33.2% | $15,758 | 2.4% | $1,363 | 0.2% | $0 | 0.0% | $348,240 | 53.2% | $71,921 | 11.0% | $654,525 | 100.0% | 2.8% |
| DHHS | $105,958 | 10.7% | $53,679 | 5.4% | $19,169 | 1.9% | $75,000 | 7.6% | $361,936 | 36.5% | $375,126 | 37.9% | $990,868 | 100.0% | 1.5% |
| Engineering | $942,441 | 15.6% | $176,434 | 2.9% | $45,160 | 0.7% | $482,553 | 8.0% | $2,944,779 | 48.8% | $1,448,536 | 24.0% | $6,039,903 | 100.0% | 1.9% |
| Finance [2] | $174,000 | 6.0% | $98,111 | 3.4% | $47,403 | 1.6% | $56,459 | 1.9% | $1,799,000 | 62.0% | $728,470 | 25.1% | $2,903,443 | 100.0% | 21.9% |
| Fire | $12,302 | 1.6% | $27,432 | 3.6% | $6,903 | 0.9% | $110,000 | 14.5% | $408,910 | 53.7% | $195,693 | 25.7% | $761,240 | 100.0% | 1.0% |
| Law | $146,951 | 36.9% | $17,360 | 4.4% | $2,865 | 0.7% | $0 | 0.0% | $182,254 | 45.8% | $48,794 | 12.3% | $398,224 | 100.0% | 3.7% |
| Library [3] | $299,697 | 29.6% | $13,629 | 1.3% | $23,109 | 2.3% | $0 | 0.0% | $558,430 | 55.1% | $117,941 | 11.6% | $1,012,806 | 100.0% | 4.4% |
| Municipal Court | $117,321 | 11.9% | $13,821 | 1.4% | $35,482 | 3.6% | $72,580 | 7.4% | $463,616 | 47.2% | $279,946 | 28.5% | $982,766 | 100.0% | 6.4% |
| Neighborhoods | $59,636 | 41.3% | $8,232 | 5.7% | $0 | 0.0% | $443 | 0.3% | $42,681 | 29.6% | $33,236 | 23.0% | $144,228 | 100.0% | 3.2% |
| OMP | $99,678 | 36.5% | $24,478 | 9.0% | $0 | 0.0% | $0 | 0.0% | $91,197 | 33.4% | $57,565 | 21.1% | $272,918 | 100.0% | 4.9% |
| Parks | $312,740 | 27.2% | $50,332 | 4.4% | $1,390 | 0.1% | $0 | 0.0% | $317,500 | 27.6% | $468,065 | 40.7% | $1,150,027 | 100.0% | 1.9% |
| Personnel [4] | $528,530 | 8.7% | $303,396 | 5.0% | $100,000 | 1.7% | $4,200,000 | 69.4% | $350,000 | 5.8% | $569,434 | 9.4% | $6,051,360 | 100.0% | 57.3% |
| Police | $472,170 | 26.0% | $70,276 | 3.9% | $4,573 | 0.3% | $0 | 0.0% | $950,376 | 52.4% | $316,560 | 17.5% | $1,813,955 | 100.0% | 1.6% |
| Seattle Center | $90,727 | 17.2% | $15,589 | 3.0% | $0 | 0.0% | $0 | 0.0% | $298,892 | 56.6% | $122,769 | 23.3% | $527,977 | 100.0% | 2.8% |
| Water | $1,576,856 | 19.3% | $81,996 | 1.0% | $12,266 | 0.2% | $18,097 | 0.2% | $4,434,550 | 54.4% | $2,029,608 | 24.9% | $8,153,373 | 100.0% | 6.7% |

1. DAS data processing costs for hardware, software, training and consultants are charged back to the City departments as DAS DP Service Charges. The totals in this table will be different than Table 3 because DAS Charges are included but DAS as a department is not.
2. Finance Deprtment cost includes maintenance cost of the city-wide SFMS system.
3. Portion of the Library DP cost are funded privately.
4. Personnel Department cost includes development and maintenance cost of the city-wide HRIS system.

N/A - Not Applicable